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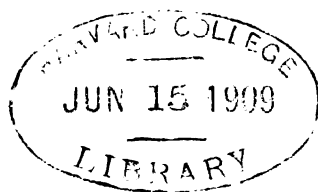
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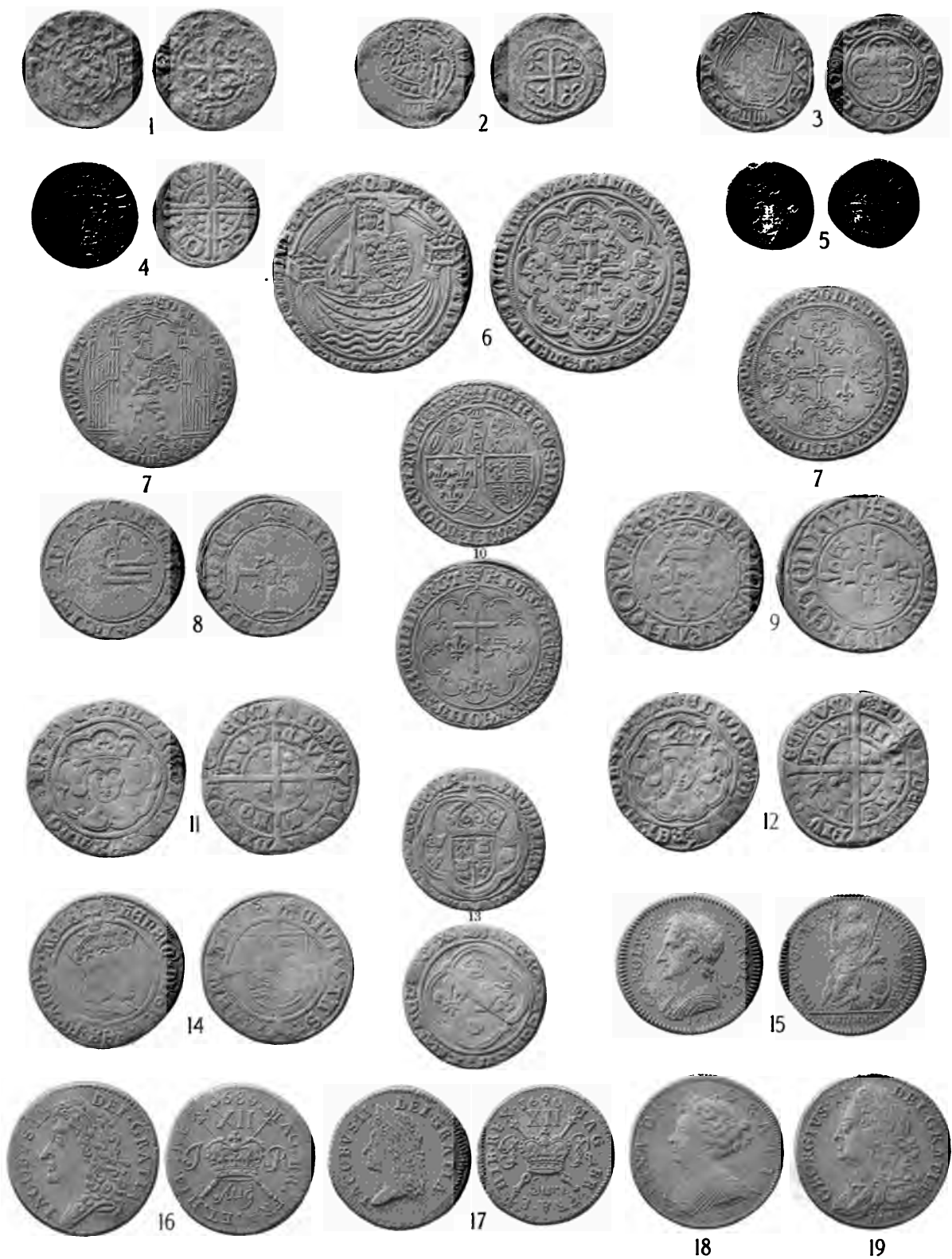
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INFLUENCE OF WAR ON THE COINAGE OF ENGLAND.

THE INFLUENCE OF WAR ON THE COINAGE OF ENGLAND.

BY LIEUT.-COLONEL H. W. MORRIESON, R.A., *Librarian.*

IN presenting this paper on the influence of war on the coinage of England since the Conquest, I do not propose to introduce any new theories, but to collate chronologically those incidents occurring in the many wars, both civil and foreign, which have left their mark on the coinage of this country. My object is to draw, for a brief period, the attention of the members of this Society to that subject, and as forcibly as possible to impress on their minds those various warlike events, both honourable and otherwise, which have left their mark on our grand coinage, the study of which has such a fascination for so many of us.

William I., when he had taken possession of England after that most decisive battle of Hastings, A.D. 1066, left the coinage as he found it, barely even altering the type of the obverse (Hks. 233). No warlike event either in his reign or in those of his sons William II. and Henry I. seems to have left its mark, unless his last issue (Hks. 241, 2), the PAXS type, be taken to commemorate the final subjection of England, for just before the issue of this type in September, 1086, *Domesday Book* had been completed and William had received at Salisbury the oath of fealty from all the freeholders of the kingdom. Mr. W. J. Andrew points out in *Numismatic Chronicle*, 4th series, vol. i, p. 16, that many of the great barons possessed charters from the king permitting them to coin money in various places, and that this privilege could be exercised only when the grantee was in residence. Some of the types of these first three Sovereigns are represented by very few mints. We can therefore assume that the grantees of those which are missing were absent, and they had probably accompanied the monarch, as was the custom of the time,

to Normandy, where there were constantly small wars, in one of which William I. received the injuries from which he died.

The chaos produced by the usurpation of Stephen is well marked, not only by the wretched condition of the coins themselves, but by the appearance of those known to numismatologists as the Baronial Series. The difference between this series and that coined by the nobles under a charter from the king, which I have already mentioned, lies in the fact that the former bears no reference to the Sovereign, and the various pieces are coined in the baron's own name. Some were struck in the name of Matilda, others, according to Hawkins, in the names of Henry, Bishop of Winchester, Robert Earl of Gloucester, Eustace and William, sons of Stephen, Roger Earl of Warwick, etc. These coins, as may be expected, are nearly all below the proper weight. The coins of Stephen were further disfigured by his opponents, on some occasions stamping a cross on the obverse, almost obliterating the head. It is also stated that much base money was issued at this time, but with the exception of a few pieces struck by a moneyer named Algar, who suffered the legal penalty for the offence, the coins of this period, which have survived to the present time, are all of the legal standard.

Henry II., on his succession, resumed most of the grants which his predecessor Stephen had given, and destroyed some castles which had been illegally erected, and from which the greater part of the alleged base coins had been issued. The money, which he issued shortly after his succession, known as the "Tealby" type, shows no improvement on that of his predecessor, the coins being very nearly as badly struck, which may be taken as a further proof of the then disturbed state of the country. This type, however, had to do duty till 1180, when the "Short Cross" money appeared. Class II of this "Short Cross" series is now attributed to Richard I., and from the falling off of the workmanship of these pieces we can easily see how the country suffered from the absence of its ruler, who preferred destroying, with Papal sanction, Moslems in Palestine to looking after his own dominions.

The Crusades, again, leave their mark in the reign of Henry III.

Some of the coins of the Long Cross Series (Hks. 289) bear the mark of the star and crescent over the head, and this has been attributed to their being struck to commemorate the formation of an army to take part in the ninth and last Crusade which sailed for the Holy Land in 1270 under Prince Edward, afterwards Edward I. It was in this campaign that the Prince performed those deeds of valour which caused the Emir of Jaffa to hire an assassin to stab him with a poisoned dagger. It is traditionally reported that his life was preserved by his wife, Eleanor of Castile, courageously sucking the poison from the wound.

The wars with Scotland under the first three Edwards caused a mint to be established at Berwick, and here were issued pennies, halfpennies, and farthings, some of which had the badge of that town, a bear's head, in two quarters of the reverse.

In 1338 Philip IV. of France died, leaving no son. Edward III. claimed the throne of that kingdom as being the next heir general through his mother, Isabella, who was a daughter of Philip. The claim was opposed by the late king's nephew, on the ground that he was the next heir male and that Edward was ineligible under the Salic Law. Edward immediately called himself King of France, quartered the lilies on his coat-of-arms and prepared to support his pretensions with all the forces that England could furnish. Thus commenced that series of campaigns known in English history as the Hundred Years' War, which, according to Lord Macaulay, was the first appearance of our ancestors on the battlefields of Europe as a nation. The great naval engagement of Sluys was fought in 1340, which gave Edward the command of the sea, and four years later he emphasised this by having himself depicted on the first noble, standing in full armour, sword in hand, on the deck of a ship of the period. This coin is the first concrete appearance of the claim of our country to be mistress of the seas. This was evidently the idea of that time, as an anonymous poet of the period of Henry VI. writes :

"Four things our noble showeth to me,
King, Ship, Sword and Power of the Sea."

On his coins up to 1360 the French title appeared, which was

dropped that year in accordance with the treaty of Bretigny; but evidently to keep alive his pretensions, he placed on them his own title of Lord of Aquitaine. After this treaty he struck for his French Dominions a gold coin known as the *guiennois*, the reverse legend of which—GLORIA IN EXCELSIS DEO ET IN TERRA PAX HOMINIBVS—has direct reference to the peace he hoped his country would in the future enjoy. When the treaty was broken in 1369 the title of Aquitaine was dropped on the silver coins and that of King of France again adopted. A mint was established at Calais, 1347, probably to supply the English troops in the North of France with money, or perhaps for commercial purposes owing to the proximity to Flanders, with which State most of the English trade was then carried on. In the South from the cities of Aquitaine and Poitou was issued that beautiful series bearing Edward's name and that of his son the Black Prince. This series, which had been commenced by Henry II. as Duke of Aquitaine in right of his wife Eleanor, was continued by his successors till it ended in the reign of Henry VI., when the English Sovereigns practically ceased to have any possessions in France, though some three hundred and fifty years were to elapse before they dropped the empty title of king of that country.

In 1399, Henry Bolingbroke, Duke of Lancaster, revolted against his cousin Richard II., captured and deposed him, and though not the rightful heir, ascended the throne as Henry IV., and his name appears on the coinage. Nothing beyond this happened till the reign of his son.

Mr. F. A. Walters has lately published a theory (*Numismatic Chronicle*, 4th series, vol. iv, p. 177) that shortly after the accession of Henry V. to the throne, he placed the so-called broken annulet on some of his coins to show that the circle of his dominions was incomplete, owing to the loss of part of the French possessions at one time held by his great-grandfather Edward III. When he had regained these provinces, through his victorious campaign in which the battle of Agincourt was fought and the Treaty of Troyes had declared him Regent of France and heir to that throne, in order to show that

the dominions of England were once more complete, he changed the broken for that full annulet which is so conspicuous on his last coinage and also on the first of his successor. The completeness of his triumph is well exemplified in the Anglo-French series, for coins bearing the names of Henry V. and VI. were issued from the mints of Paris, Rouen, Amiens, St. Lo and other towns for the use of his new subjects. The Calais mint, which had been dormant since the early years of Richard II., now became active, and during the first portion of Henry VI.'s reign produced by far the greater bulk of the silver coinage current throughout the realm. As the fortunes of England waned and the French, after that gallant struggle inspired by the heroic Joan of Arc, gradually drove the English out of all they possessed on the continent of Europe save Calais, so did this prolific coinage dwindle until it finally ceased. The town remained in the possession of England till 1558, when it was taken by the Duke of Guise after a short siege. The fall of this town so preyed on the mind of Queen Mary that she is reported to have stated that the word Calais would be found engraved on her heart.

Anyone seizing the property of another can expect to hold it only as long as he is powerful enough to convince the despoiled of the hopelessness of attempting its retrieval. Directly, however, signs of weakness appear, the rightful owners immediately take steps to regain their own, by peaceable means if possible, and if these are not successful, then by recourse to violence. This fate befell the last of the Lancastrian Kings, who as he grew to man's estate, showed that he was not of the same quality as his father and grandfather. The country saw those splendid possessions gained by his father slowly slip from the hands of the son and the people became discontented. This, then, was the opportunity for the rightful heir, Richard, Earl of Cambridge and Duke of York, who revolted and claimed the throne. He was descended from Lionel, Duke of Clarence, the second son of Edward III., whereas Henry VI. could claim descent only from John of Gaunt, Duke of Lancaster, the third son. This civil war, known as the Wars of the Roses, continued for some years with fluctuations of fortune on both sides. Edward, afterwards Edward IV.,

who on his father's death became Duke of York, and thus the leader of the Yorkist faction, gained the upper hand and seized the throne, but after a time Henry came into his own again. His star, however, was in the ascendant only for a short period, when his rival again appearing on the scene, finally routed his forces at the Battles of Barnet and Tewkesbury, and the unfortunate Henry eventually died a prisoner. The war caused an increase in the number of the mints, Bristol, Coventry, and Norwich being temporarily added to those already existing. The fluctuations of fortune are shown by the coins of Edward IV. and the light coinage of Henry VI. This civil war reduced the country to a state bordering on chaos, and so disturbed was it that it even affected some of the letters in the legend on the coins, for during the worst period the letters **R** and **R** curled their outer loops in like frightened dogs do their tails, and when brighter times came uncurled them, as are shown on the coins bearing the middle mint-marks of Edward IV. and the light coinage of Henry VI. This, of course, was a mere coincidence. There are two mint marks which have peculiar reference to this war, viz., the rose and the sun. The rose, which evidently referred to the Yorkist Badge, was the second of Edward's mint-marks, and was followed by the sun. The sun was assumed by Edward as one of his badges after his victory at Mortimer's Cross, 1461, for just before the engagement he is alleged to have seen a marvellous phenomenon of three suns uniting into one blazing luminary. On the first angel introduced in 1465 the cross between a rose and sun is illuminated by the rays of a sun shining from above. This mint-mark is found in conjunction with the rose, crown, and cross fitchée marks. Both these mint marks were used in the country mints of Bristol, Norwich, and Coventry, while the latter was used also at York, in conjunction with the lis, the usual mark of that mint. The rose is also a conspicuous object on the Ryal.

The Battle of Bosworth, 1485, ending in the defeat and death of Richard III., placed Henry VII. on the throne. The only numismatic incident affecting our subject which occurred in this reign, is the groat struck by the Pretender, Perkin Warbeck, in 1494. This young

man, who declared himself to be Richard, Duke of York, who with his brother, Edward V., had really been murdered by order of his uncle, Richard III., in the Tower, was assisted by the Duchess of Burgundy and the Kings of France and Scotland, which will account for this coin being of French design. It is further peculiar by having the date 1494 struck on it. The rebellion, like the others of this reign, was suppressed, and Perkin ended his days on the scaffold.

The only military event that has left its mark on the coinage of Henry VIII. is his campaign against Louis XII. of France in 1513, in which he captured Tournay, where he coined groats of two patterns. The first was similar to his English groats, but with CIVITAS TORNACENS on the reverse. The other was after the French model, and is interesting from the fact that it is the first time that the date appears on a coin struck by an English monarch. It had already become customary for Continental Sovereigns to put the date on their coins, and as I have just stated that this type was from a French model, it will account for the date appearing on it. This remark will apply equally to the Perkin Warbeck groat to which I have already drawn attention. Some thirty-four years had to elapse before the date first made its appearance on a coin struck in England itself.

The stirring reign of Elizabeth has left practically no trace, save the countermarking of some of her coins with the arms of Zealand, a province of Holland. This, according to Hawkins, is said to have been done in the Low Countries to give currency there to the money taken over as subsidies by the Earl of Leicester. It is curious that the defeat of the Spanish Armada in 1588 has left no numismatic record. The mint-mark for that and the following year was the crescent, which was followed in 1590 by the hand. To a strong imagination it might appear that this latter mark was meant to represent the hand of the Almighty, which had so providentially protected our beloved shores from the mighty power of Spain, and had enabled our ships to give such a signal and crushing defeat to the forces of the proud and bigoted Philip II.

I now arrive at that period which is by far the richest in numismatic traces of civil discord, viz., the Parliamentary wars of

Charles I. On the 25th of August, 1642, that monarch raised his standard at Nottingham, and the war commenced. On the 19th of September following he, at Wellington in Shropshire, made the famous declaration that he would preserve the Protestant Religion, the known laws of the land and the just privileges and freedom of Parliament. Shortly after that event the Aberystwith Mint was moved to Shrewsbury, where the first coins of the Declaration type were struck. The mint was almost immediately transferred to Oxford, where it remained till 1646, when that city fell into the hands of the Parliament. At both these places pounds and half pounds in silver were coined, on the obverse of which the king is generally represented as riding over ground strewn with spears and other implements of war. Mints were established also at Bristol, Chester, Exeter, Weymouth, and Worcester. There were others, but numismatists have not been able with any accuracy to attribute coins to any one of these in particular. Some of these doubtless were issued by the Parliament, and it has been suggested that those bearing the Declaration, or anything special, were issued by the Royalists, while those which are an imitation of the Tower type were struck by their opponents. The Tower mint was seized by the Parliament at the very commencement of the struggle, but as the artificers were Royalists they immediately deserted, thus the money had to be struck by inferior workmen. This accounts for the poorer workmanship of the coins bearing the marks later than the triangle in circle, to those struck in the earlier years of the reign. In the large find of coins at East Worlington, Devonshire, in 1895, it was noticed that many of the pieces bearing the bust of Charles had been defaced by the features being very much scratched, thus showing that some of His Majesty's opponents exhibited their hatred of their Sovereign by attempting to efface his effigy. This, as I have already pointed out, happened also in the reign of Stephen.

There were other types of coins of divers shapes, designs and denominations which were struck by the besieged garrisons of various towns and castles as money of necessity. These are known as obsidional or siege pieces; they were struck at Beeston, Carlisle, Colchester, Newark, Scarborough, and Pontefract. This last-named



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castle was still holding out at the death of the king, and from that time till its surrender, a little later, struck its money in the name of his son, Charles II.

After the execution of the king in 1649 the Parliament struck money in its own name. The type was very different from the Royal pieces, and the legend was in English. It apparently did not please the people, and it was derisively called by its opponents the "breeches money," from the similarity of the shields on the reverse to that very necessary garment—a fit stamp perhaps for the coin of the "Rump."

Charles II. had great ideas of the superiority of his country on the sea. Shortly after his succession a number of patterns for a copper coinage appeared. On the earlier pieces a favourite device was a ship, and later, in 1665, his bust with a figure of Britannia on the reverse. Among the reverse legends on the former, and entirely on the latter, was QVATVOR MARIA VINDICO—"I claim the four seas." This proud claim provoked, it is said, a remonstrance from his cousin Louis XIV. of France, and was entirely quashed in 1667 when the Dutch fleet successfully raided the Thames and Medway. In 1672, when these coins were issued for circulation, the modest legend of BRITANNIA replaced the boastful claim. The king, however, still had a hankering after the first inscription, for in 1675-76 patterns similar to those of 1665 were issued.

The Revolution of 1688 cannot be passed over without a reference to James II.'s struggle to retain his throne in Ireland. He entered Dublin in March, 1689 (N.S.), but soon found himself short of money, and in June appeared the first of those debased tokens known as "gun money," from the metal that entered most largely into their composition. Two mints were established, at Dublin and Limerick respectively. That of the former ceased when it was captured by William III. after his victory at the Boyne in July, 1690; but the latter continued till the surrender of Limerick in October, 1691. At first sixpences were issued, followed directly afterwards by half-crowns and shillings, and the following year by halfpence and farthings. In April, 1690, white metal crowns were struck, but few got into circulation; at the same time the half-crowns and shillings were ordered to be of smaller size. In June the large

half-crowns were recalled and subsequently re-issued as crowns, having a new design stamped on them, but so imperfectly that the traces of the first are easily discernible. The issues of the gun money ceased in October, 1690, but during the siege of Limerick, the mint in that city issued farthings, known as "Hibernias," which were merely the old shillings overstruck with a new design.

Directly William entered Dublin in July, 1690, he made a proclamation ordering the gun money to be current in Ireland only at its intrinsic value; the large half-crown thus passed for one penny and the smaller denominations in proportion. In the February following, by another proclamation, it was decreed that this base money should be no longer current. The sufferers were the native Irish, who were the adherents of James, and so to them this was another injustice to Ireland. Roughly speaking, one hundred tons of scrap metal was coined into money of the nominal value of over a million and a quarter sterling.

As far as England itself was concerned the only outcome of the Revolution was the substitution of the heads of William and Mary for that of James II.

In May, 1702, war was declared against France and Spain, and is known in history as that of the Spanish Succession. In the October following, the English and Dutch, under Sir George Rooke, captured Vigo, and amongst the booty was an immense quantity of Spanish coin. This specie was brought to England, sent to the mint, melted down and recoinced, and the pieces struck from it bear the name of VIGO under the bust of Queen Anne. In 1712, Dean Swift wrote a remarkable letter to the Lord Treasurer, pointing out how he considered the coinage might be improved. Among his suggestions was the following: "That they bear devices and inscriptions alluding to the most remarkable parts of Her Majesty's reign."

His letter had some slight effect, for in 1713 was issued a pattern for a farthing having on the reverse, Peace in a biga, holding in her right hand an olive branch, in her left a spear, with the legend PAX MISSA PER ORBEM. This design purposed to commemorate the peace of Utrecht which had been concluded that year.



INFLUENCE OF WAR ON THE COINAGE OF ENGLAND. PL. III.

The next event to interest us is the appearance of the word LIMA under the bust of George II. on the coins dated 1745, 1746. The country was then at war with France and Spain. These coins were struck from the bullion which was captured, according to Mr. Pollet, by the *Prince Frederick* and *Duke* privateers. According to other authorities, they were coined from the specie captured by Lord Anson in the Pacific Ocean.

It is curious that this point has never been settled. Anson returned from his famous cruise in 1744, in the course of which he had raided the coast of Peru and taken several rich prizes. On his way home, off the Philippine Islands, he, after several weeks of waiting, fell in with and captured the great galleon *Nuestra Senora de Covadonga* from Acapulco containing treasure to the value of one and a half millions of dollars. His arrival in England was marked by great rejoicing, and he was immediately promoted Rear-Admiral. To me, it appears much more likely that the specie so obtained by an official expedition would be specially marked, rather than that captured by two obscure privateers. No better name could have been selected than LIMA, the chief town on that part of the Pacific Coast of America where Anson had so successfully flaunted his country's flag. Hawkins is, however, of the other opinion, on the ground that Acapulco is not in Peru, and that Mexican silver could hardly have been stamped with the name of a Peruvian town.

In the last forty years of the eighteenth century, very little copper and, except in the year 1787, practically no silver money was coined. During the whole of that period England, with very little interval, was continually at war, which state of affairs did not cease till after the battle of Waterloo in 1815. To remedy the inconvenience caused, a quarter guinea was coined in 1762 and seven-shilling pieces from 1797 to 1813; both of these denominations were of gold.

The scarcity of small change first made itself felt in the copper money, and this was met by the production of that vast number of halfpenny and farthing tokens which are enumerated in Atkins's *Tokens of the Eighteenth Century*. These disappeared after the issue of the "Cartwheel" twopences and pennies in 1797, followed by halfpennies

and farthings in 1799. The Naval successes of that time led the designer of the reverse of these pieces to arm the figure of Britannia with a trident instead of a spear, and to place her seated on a rock by the sea with a man-of-war on the horizon. There also appeared patterns for a penny, halfpenny and farthing, in 1797, representing Britannia seated on the breech of a field gun. Silver then became scarce, and this scarcity was met by the issue by the Bank of England in 1797, of Spanish dollars, countermarked by having the King's head used at Goldsmiths' Hall for marking silver plate stamped upon the neck of the Spanish King, and these were ordered to pass for 4s. 9d. This expedient met with a certain amount of derision and gave rise to various witticisms, such as—

“ The Bank to make their Spanish Dollars pass,
Stamped the head of a fool on the head of an ass ; ”

and “ Two kings' heads do not make a crown.”

Early in 1804, owing to frequent forgery of the countermark, a notice was issued that the Mint Authorities had been instructed to prepare the necessary means of stamping, in an octagonal form, the head then used for impressing the silver penny, without the inscription. This change in the stamp had little effect, and forgeries soon reappeared. Some half dollars, quarter dollars, and eighths of dollars were likewise stamped, but they are rare. The authorities then decided to efface the original impress of the dollar by a new device, having on the obverse the king's head as on the copper twopence, and on the reverse a figure of Britannia with the words, “ Five Shillings Dollar Bank of England, 1804.” The value was afterwards raised to 5s. 6d. and patterns were struck for this new value. Small silver change was met by various towns and tradesmen issuing silver tokens on their own account, and the Bank of England, in 1811, began to issue them for 3s. and 1s. 6d., while a pattern was struck for ninepence. This deficiency of silver coin was most severely felt in the Colonies, where the authorities were reduced to the expedient of cutting up Spanish dollars into bits. These bits were then countermarked, each Colony having generally its own mark, and issued for currency.



INFLUENCE OF WAR ON THE COINAGE OF ENGLAND.

On the union with Ireland in 1801, George III., probably prompted by his disgust and hatred of the French for the execution of their king, queen, and members of their aristocracy, as well as for the many years of war waged between the two countries during his reign, took the opportunity of dropping the empty title of King of France, and so that designation disappeared from the coins.

Directly after the peace of Paris, which concluded the great Napoleonic struggle, the Government of the day addressed themselves to rehabilitate the coinage, and in 1816 appeared that last issue of George III., based entirely on a gold standard, which is so well known to all of us and which we have jingled sometimes in our pockets. The appearance of this new money put an end to all those expedients of dollars and tokens, which soon disappeared.

From that day nothing happened till after that black week in December, 1899, when our forces received a series of defeats at the hands of the Boers in South Africa, and the loss of our Colonies there appeared imminent. Then it was that the rest of the British Possessions from North, South, East and West, sent forth contingents of their best and bravest to prevent this calamity. In honour of this loyalty and zeal, our present gracious Sovereign, on his succession to the throne in 1901, proclaimed himself, by the grace of God, King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, etc. In accordance with this proclamation, the abbreviated words BRITT. OMN. appeared on the legends of our coins ; and long may they remain there !

DESCRIPTION OF THE PLATES.

PLATE I.

1. Stephen. Penny, countermarked.
2. Matilda. Penny.
3. Eustace. Penny.
4. Henry III. Penny, long cross m. m. crescent and star.
5. Edward I. Halfpenny of Berwick.
6. Edward III. Noble.
7. " Guiennois.
8. Henry V. Double of Rouen with title of heir of France.
9. " Gros of Rouen with title of King of France.
10. Henry VI. Salute coined at Paris.
11. " Light groat.
12. Edward IV. Groat mint-marks. *Obverse*.—Sun ; *Reverse*.—Rose.
13. Henry VII. "Perkin Warbeck" groat.
14. Henry VIII. Groat coined at Tournay.
15. Charles II. Pattern farthing with reverse legend QVATVOR MARIA VINDICO.
16. James II. Large gun-money shilling.
17. " Small " "
18. Anne. Shilling, VIGO under bust. *Obverse* only.
19. George II. Shilling, LIMA under bust. *Obverse* only.

PLATE II.

20. Charles I. Half-crown, Bristol, 1643. *Reverse* only.
21. " " " 1644.
22. " " Chester.
23. " " Exeter, 1642.
24. " " " no date, Hawkins, No. 5.
25. " " " no date, Oxford *obverse*.
26. " " " 1644, *obverse* only..
27. " " Oxford, 1643.
28. " " " 1645.
29. " " Shrewsbury, 1642.
30. " " " " with value on *reverse*.

PLATE III.

31. Charles I. Half-crown. Weymouth.
32. " " Worcester.
33. " Pound. Oxford, 1644.
34. " Half-pound. Shrewsbury, 1642.
35. " Sixpence. Scarborough obsidional.
36. " Shilling, 1648. Pontefract obsidional lozenge shape.
37. " " " " " octagonal.
38. " Half-crown, 1645, Newark. Obsidional lozenge shape.
39. " Shilling. Carlisle "
40. " Shilling, Irish "Ormond."

PLATE IV.

George III.

41. Spanish Dollar with oval countermark. Obverse only.
42. " " octagonal " "
43. Bank of England Dollar, 1804.
44. " 5/6 Bank token. Britannia reverse.
45. " " Plain reverse.
46. " 3/- Bank token, 1811.
47. " 1/6 " 1812.
48. " 9d. " 1812.
49. Pattern penny.
50. Halfpenny, 1799. Reverse only.
51. Spanish Dollar countermarked G. R. for Jamaica.
52. Part of Spanish Dollar countermarked for St. Vincent. Reverse only.
53. " " " for St. Lucia. Reverse only.
54. New South Wales "holey" Dollar.
55. Portion removed from the above to pass for 15 pence.

NOTE.—Nos. 1, 2, 3, 7, 33, 35, 37 and 39 are from coins in the collection of Mr. B. Roth, Nos. 51, 52, 53, 54 and 55 are from those belonging to Messrs. Spink and Son, and the remainder from the Author's collection.

THE BERKELEY MINT.

By P. W. P. CARLYON-BRITTON, F.S.A., *President.*

BERKELEY, in *Domesday* written Berchelai, is the well-known market-town and parish in the hundred of the same name, in the county of Gloucester, seventeen miles S.W. from Gloucester and one hundred and fourteen W. by N. from London. The town is situate on a gentle eminence in the far-famed Vale of Berkeley, at the distance only of one mile from the river Severn. In 1831 there were 3,835 inhabitants, but now the number is 774. Prior to 1831 it was of greater extent, but the diversion of the turnpike road from Gloucester to Bristol, which formerly passed through it, is supposed to have contributed to its decay.

In *Domesday Book*, Berkeley is included in the *terra Regis*. The following is a translation of the entry :—

“ In Berkeley (Berchelai) King Edward (the Confessor) had five hides and in demesne five ploughlands and twenty villeins and five bordarii with eleven ploughlands and nine serfs and two mills worth twelve shillings. There are ten “radchenistres” (= road knights?) having seven hides and seven ploughlands. There is a market in which remain seventeen men and they render tax at a fixed rent.”

Then follows a long list of the berewicks, or villages, pertaining to Berkeley.

Roger is named as steward or reeve (*præpositus*) of Berkeley, under “Count William,” viz., King William I., to whom he rendered therefor for rent £170, “burnt and weighed.”

This Roger was probably the first of his name of the original Berkeley family. From this account it will be seen that Berkeley was in the hands of the Crown in the time of Edward the Confessor, and

that it passed from him to William I., after Harold II. had been defeated at Hastings.

There are, however, some earlier references to Berkeley than that contained in *Domesday*. The earliest of these is contained in a document described as the settlement of the dispute between Heaberht, Bishop of Worcester, and the religious house (*familia*) at Berkeley, concerning the monastery of Westbury, co. Gloucester. This document is No. 379 in Birch's *Cartularium Saxonicum*, and was signed at the Council of Clifesho (Cliffe's Hoo, in Kent), in the reign of Beornwulf, King of Mercia, on the 30th October, 824.

Berkeley is here designated "Berclea," but in another rendering of the manuscript it appears as "Beorclea."

Beorc is Anglo-Saxon for birch-tree. As regards *lea*, *lei*, *ley*, *lega*, there is room for doubt.

Smyth, in his *Lives of the Berkeleys*, vol. i, p. 84, writes of the surname Berkeley :

"Their name is derived from the place, And the place of two Old Saxon words, Berk, which is birch ; and, lei which after Verstigan, is place, And soe from the place of birch-trees (whereof the great, old, and worne stumps of many of that kind are yet there remayninge) or from ley, which is water, a scytuation most agreeable, for three-fourth parts (in the groves of those trees) compassed therewith ; To which later I rather inclyne, because all the neighboringe Townes of that termination, as Nibley, Bradley, Cowley, Dursley, Uley, Wortley, Alderley, Hillesley, Stanley, and others, have rivers and brookes of water runninge through or close by them, or both."

The spelling BEORCLEA is that in part represented on the earliest coins attributable to this place.

In the National Collection there is a coin of Edward the Confessor, of Type III of the present writer's arrangement,¹ reading :

Obverse.—+ DDE RDEX.

Reverse.—+ EDGAR ON BEORC. Weight 17·4. See figure A.



FIGURE A.

¹ "Eadward the Confessor and his Coins," *Numismatic Chronicle*, 1905.

In the Montagu sale catalogue, Part 1, Lot 829, was described another specimen of this same type. The obverse reading is not recorded, but that of the reverse is given as follows:—

+ EDGAR ON BERCLE.

The writer has assigned the currency of Type III of the coinage of Edward the Confessor to the years 1045–1048.

A third specimen of the Berkeley coinage of Edward the Confessor is that described by Hildebrand in his account of the Anglo-Saxon coins in the Swedish Royal Collection at Stockholm (1881).

This coin reads :

Obverse.—+ EDPARD REX.

Reverse.—+ EDGAR ON BEORC,

and is of the “pointed helmet type”—Type VII of the present writer’s arrangement, and by him assigned to the years 1055–1057.

Until quite recently, the three specimens above described were supposed to be the only known coins emanating from the Berkeley Mint.

The present writer has a penny of Type VIII of William I., of the variety Hawkins 242, that is, with an annulet on the King’s right shoulder in lieu of the more usual three pellets, which he considers may be safely assigned to this place of mintage.

It reads :

Obverse.—+ PILLELM REX.

Reverse.—+ LIFFINE ON BARCI. See figure B.



FIGURE B.

As has been shown above, Berkeley was held by Edward the Confessor in demesne, and by William I. it was commended to, or put in charge of, Roger as reeve of Berkeley at a rent.

That Edward the Confessor exercised his royal right of coinage here, the few existing specimens above described afford unimpeachable

testimony, and that William I., or Roger as his representative, continued to do so, is not matter for surprise.

The name of the moneyer Lifwine (a form of Leofwine) is not uncommon, but it is noticeable that the name appears as that of one of the moneyers at Bristol on coins of the same issue as the Berkeley piece.

As regards the form of spelling of the mint-name, it will be observed that in *Domesday* the Anglo-Saxon *Beorclea* is rendered *Berchelai*, and to-day the more usual, though not exclusive, pronunciation of Berkeley is Barclay, a spelling adopted by some well-known branches of the family taking its surname from the place.

In like manner, Berkshire is very generally called Barkshire.

The terminal letter *l* in *BARCL* is not necessarily an *l*, as the coins of this period provide instances, too numerous to specify, of such a single upright stroke standing for any incomplete letter, the formation of which is commenced therewith.

The *l* in this instance may, therefore, represent *E*, *H* or *L*. The *ch* in the *Domesday* spelling of *Berchelai* is equivalent to the Anglo-Saxon *c* and the later *κ*.

The Roger de Berchelai mentioned in *Domesday*, married a lady called Rissa, and was succeeded by a son of his own name, who founded the Priory of Stanley St. Leonard, about A.D. 1130, and died before Michaelmas in the following year (see Sir Henry Barkly's paper on the Earlier House of Berkeley, printed in the *Transactions of the Bristol and Gloucestershire Archaeological Society*, vol. viii).

That Berkeley was a place of no mean importance in the reign of Henry I. is shown by the circumstance, recorded by Henry of Huntingdon, that that monarch spent Easter there in the year 1121.

The Pipe Roll of 31 Henry I., containing the Exchequer accounts for the year ending 29th September, 1130, has the following entries relating to Berkeley:—

Gloucestershire, p. 78.

Canon Sabricht renders an account of £10 4s. 6d. for a monetary plea of Roger de Berchelai. He (has paid) into the treasury ten marks of silver. And he owes 71s. 2d. And the Bishop of Worcester is surety.

And the same Sabricht owes twenty marks of silver for a treasury plea of Roger de Berchelai.

p. 80.

Amongst the *Nova placita*, the sheriff, namely, Milo de Gloucester, in rendering his account of the Danegeld is allowed :

For the land of Roger de Berchelai in the lordship of the King 36s. 4d.

Later in the record, p. 133, under *Berchelai*, are these entries :

William de Berchelai renders an account of the rent (firma) of Berchelai. (He has paid) into the treasury £234 13s. 8d. by weight and (he is allowed) for fixed allowances 30s. 5d. by number.

And for the clothing of three nuns 60s. 0d. by number. And for gifts by the King's writ to the Queen at Ashelworth £13 by number, And he is quit.

And the same William renders an account of the rent of the land of Roger de Berchelai.

(He has paid) into the treasury £61 15s. 0d. by number,

And he is quit.

And the same William renders an account of £190 that he may have in wardship the land and office (ministerium) of his uncle. (He has paid) into the treasury £40. And he owes £150.

From these entries it will be seen that the rent paid for Berchelai had increased from £170, at the time of *Domesday*, to £252 4s. 1d., in the last year of Henry I.

The William de Berchelai above named was son of Eustace, a brother of Roger, second of the name.

The entries also show that Roger II., like his father Roger I., held Berkeley as reeve for the King.

The reference to there being three nuns at Berkeley is of interest in that it shows the continuance of the religious house existing under Beornwulf, King of Mercia, in the year 824.

The troublous times ensuing after the death of Henry I. had their influence on Berkeley and the fortunes of its lords.

Amongst the supporters of the Empress Matilda, daughter of Henry I., against the claims of King Stephen, was Robert Fitzharding, who succeeded Robert de Gloucester as reeve or steward of Bristol.

His father, Harding, was formerly stated to be the son of a King of Denmark, but later historians make it clear that he was in reality the son of Eadnoth the Staller, or Master of the Horse, under Edward the Confessor, Harold II. and William I.

The support afforded by Robert Fitzharding to the cause of the Empress and her son Henry, was recognised by a grant to him from Henry, Duke of Normandy and Count of Anjou, of the Manor of Bitton and a hundred librates of land in the Manor of Berkeley, with all liberties and customs which existed there in the time of his grandfather King Henry I. Henry also undertook to build a castle at Berkeley according to the taste of the said Robert. This charter is dated at Bristol and is supposed to have been granted in 1153, Henry having landed in England from Normandy on 6th January, 1153, and being known to have visited Bristol before June of that year.

Prior to this date the Manor of Berkeley had, as above stated, been held of the Crown at a rent.

John Smyth of Nibley, writing in the year 1618, in his *Lives of the Berkeleys* (edited by Sir John Maclean and printed by the Bristol and Gloucestershire Archaeological Society in 1881), gives the following account of these events :—

“When this Harry had obteyned his right he remembered the great kyndnes and benefites of the said Sir Robert Fitzherding And gave unto him And to his Eyrys for evir the Barony of Berkeley whiche Barony Roger of Berkeley Baron of Dursley helde of the Kyng in fee farme And for so moche the said Kyng Harry the secunde toke from the said Roger bothe the Barony of Dursley and that of Berkeley for as moche as he took partye w^t Kyng Stevyn agenst Kyng Harry, And also for as moche as he refused to pay the fee ferme of the Barony of Berkeley unto the said Kyng Harry. But then after the saide Kynge Harry entretid by the noble lordes of his Royaulme gave ageyne un to the saide Roger the Barony of Dursley as his owne inheritance. And the Barony of Berkeley he gave And confermyd un to the saide Sir Robert fizherding and his Eyrys for Evir in recompence of his grete costes and kyndenes. And when after Sir Robert fizherding was lord And Baron of Berkeley, the said Roger lord and Baron of Dursley vexed and troubled with him so grevously that he came un to the said Kyng Harry And prayed him to resume

his yefte ageyne. But then after the saide Kynge Harry made a peace And a finalle concorde atwixe the said Roger and Robert so that the said Roger shuld geve his daughter Alice to wife unto Morice the son and Eyre of Sir Robert Fizherding w^t the towne of Slimbridge."

By reference to this marriage contract of Maurice, son of Robert Fitzharding, with Alice, daughter of Roger de Berkele (see catalogue of the Muniments at Berkeley Castle, 1892, Select Charter 4), we find that it stipulates for a double marriage; for, in addition to that of Maurice and Alice, a marriage is also to be had between Roger, Alice's brother, and Elena, sister of Maurice, and that no accident might interfere with the carrying out of the contract, it is covenanted, that in case of the death of any of the contracting parties before the formal espousals, his or her place is to be taken by the next brother or sister in seniority, and in case none of Elena's sisters were to be had, her place is to be filled by the daughter of Hugh de Hasele, niece of Robert Fitzharding.

Alice was daughter of Roger de Berchelai III. (who died about A.D. 1170) and the Roger de Berchelai who married Elena Fitzharding was Roger IV. of his name.

After this the *original* Berkeleys are described as the Berkeleys of Dursley, and the Fitzhardings adopted the name of Berkeley of Berkeley.

We now come to the most important charter, numismatically speaking, in relation to Berkeley.

It is a grant from Henry, Duke of Normandy and Aquitaine and Count of Anjou to the same Robert Fitzharding of Berkeley Manor and all Berkeley Harness, with all appurtenances as fully and completely as they were held in the time of King Henry, his grandfather; to hold in fee by service of one knight, or if Robert or his heirs should desire it, they might pay one hundred shillings yearly instead of the knight's service. In addition, Henry granted a free market on any day of the week they might prefer, and *a mint with their own moneyer* (et monetam cum proprio monetario suo).

This charter was probably granted at Bristol in November, 1153.

A similar grant was made simultaneously to Maurice, son of Robert Fitzharding.

Both grants were confirmed by Henry, as King Henry II., in 1154.

The charter of confirmation to Robert Fitzharding (1154), a charter of Richard I. to Robert the son of Maurice de Barkelai (dated 18th November, 10 Richard I.), and a charter of King John to Robert the son of Maurice de Berkelay (dated 18th April, 1 John) are set out at length in an *inspeximus* and confirmation dated 8th June, 4 Edward III. (see Charter Roll, 4 Edward III., No. 62) to Thomas de Berkele of that time. This document adds a grant of the returns of the King's Writs within the hundred of Berkeley. For convenience of reference these charters are set out in an appendix hereto.

The mint and moneyer are only specifically mentioned in the charters of 1153 and 1154, but the general terms of the charters of 10 Richard I., 1 John and 4 Edward III., might be argued to be sufficient to include the confirmation of the right of coinage.

The grant of the free market and the mint and moneyer seem to be a perpetuation of the state of affairs existing in the reigns of Edward the Confessor, William I. and Henry I., when Berkeley was let at a rent payable to the Crown. Presumably the same conditions pertained to Berkeley in the reigns of Harold II., William II. and Stephen; but of this there is no record.

As has been shown, the only remaining early coins of Berkeley are three specimens of Edward the Confessor, comprising Types III and VII, and one of William I. (Type VIII).

William de Neuburgh, under the year 1149, tells of the state of affairs in reference to private grants of coinage existing in the reign of King Stephen, in the following passage:—

“Castella quippe per singulas provincias studio partium crebra surrexerant, erantque in Anglia quodammodo tot reges, vel potius tyranni, quot domini castellorum habentes singuli percussuram proprii numismatis et potestatem subditis, regio more, dicendi juris.” (Rolls Edition, i, p. 69.)

When Henry II. succeeded to the throne he suppressed the mints of most of the bishops, earls and barons who had in his predecessor's time exercised the right of coinage.

This is recorded by Hoveden, also under the year 1149, in the following words :—

“Fecit (Henricus) monetam novam quam vocabant monetam Ducis, et non tantum ipse, sed omnes potentes tam episcopi quam comites et barones suam faciebant monetam, sed ex quo dux ille venit, *plurimorum monetam cassavit.*” (Rolls Edition, i, p. 211.)

Whether Henry suppressed the mint so recently confirmed by him to his strong supporter Robert FitzHarding of Berkeley is not known, but the absence of any Berkeley coins of his early type (Hks. 285), as well as of the later short-cross issues, seems to show the likelihood of his having so done.

On the other hand, the wanton destruction by melting at the mint of by far the greater part of the Tealby find of coins of the first issue of Henry II. may account for the absence of any Berkeley coin of that type (Hks. 285); moreover, the issue of coins from Berkeley was probably very small, as is shown by the paucity of the existing specimens of Edward the Confessor and William I., and it is therefore possible that the existing lacunæ may yet be filled.

Although there was no confirmation by Henry III. to any Lord of Berkeley, a coin (see figure C) in the possession of the writer and a similar specimen (see figure D) in the collection of his colleague, Mr. L. A. Lawrence, of one of the long-cross issues of Henry III. seem to be of this mint.

These pieces read :

Obverse.—**HENRICVS REX III.** Full-faced bust of King crowned, with sceptre in right hand.

Reverse.—**RAND ON BERI.**

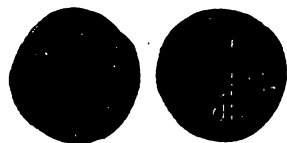


FIGURE C.

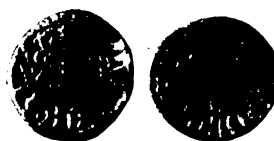


FIGURE D.

At this period the final I is probably the initial stroke of an incomplete K.

The first long-cross issue of Henry III. took place in 1248, soon after the succession to the barony of Berkeley of Maurice II., fifth

Lord Berkeley, who was a strong partisan of the King and received many favours at his hands.

This Lord Berkeley is termed by John Smyth of Nibley "Maurice the resolute." His wife Isabel was a niece of King Henry III. He enjoyed the Barony of Berkeley until his death in 1281, and was a faithful supporter of the King throughout the period of the Barons' War (1258-1265), wherein Simon de Montfort figured so prominently as champion of the people's cause.

Although Hawkins places the coins of Henry III. bearing the sceptre first in his enumeration of the long-cross types, he remarks that the issue without the hand and sceptre, and having a mullet over the King's head, is proved by a comparison of the moneyers in that type with a list of those appointed in 1248, set out in an appendix to John of Oxenedes' Chronicle, to have been issued about that year. The writer is of opinion that the coins reading **ANGLIE TERCII'** of the Canterbury, London, and Bury St. Edmund's mints only, and having the crescent and star mint mark, are the earliest of the long-cross series, that these are followed by those bearing the word **TERCII'**, which in turn are succeeded by the issue with mullet, or star, mint mark, without sceptre, and having the numerals III, followed by the mark of contraction ', signifying "us," and in full equal to **TERCIIVS**.

This last-mentioned class frequently has additional pellets in the field opposite the juncture of the two curls representing the King's hair on either side, a characteristic feature of this issue which is preserved in the transitional coins next mentioned, and in some of the early "hand and sceptre" pieces, including the coins now attributed to Berkeley.

The present writer possesses coins of the Canterbury, London and Bury St. Edmund's mints of the hand and sceptre type, with a mullet over the King's crown and with the legend commencing to the right of that mark, and having the additional pellets just alluded to, which seem to indicate that the "hand and sceptre" coins followed those previously described, and constituted the last type of Henry III. This view is supported by a comparison of the mints whence this coinage was issued with those of Edward I. Mr. H. B. Earle Fox and Mr. L. A. Lawrence concur in these views.

It is therefore suggested that the Berkeley coins under discussion were issued by Maurice, fifth Baron Berkeley, in his capacity of a supporter of the King during the Barons' War (1258-1265). Such action on the part of an adherent and nephew by marriage of so troubled a Sovereign would not be questioned, especially having regard to the express terms of the grants to his ancestors by King Henry II., which were, at any rate, not negated by the subsequent grants and confirmations above alluded to.

The possibility of these coins having emanated from Berwick-upon-Tweed is refuted by the fact that that place was not taken from the Scots until the reign of Edward I. (1296), nor is it likely to have been struck at the small Sussex village of Berwick, although this is situate near Lewes, where a decisive battle in the Barons' War took place.

In conclusion, it may be noted that Ruding, in his *Annals of the Coinage of Great Britain*, vol. ii, p. 171, gives the following account of the Berkeley Mint :—

“In the fourth year of Edward III., Thomas Lord Berkeley acquired from the King a full confirmation of Berkeley, etc., and likewise liberty of coinage.” (Cart. 4 Edward III., n. 62 : Dugdale's *Baronage*, vol. i, p. 357.)

“To this account, Rudder, in his *History of Gloucestershire* (p. 269), has made the following addition :—‘but those privileges have been long since disused, because the expense of passing accounts in the exchequer exceeded the profits arising from them.’ For this he gives no authority, and I presume the whole originated in his own imagination.

“In Atkyns's history of this county the mint is not mentioned, nor does it anywhere appear that it was ever worked.”

The reference in Dugdale's *Baronage*, apart from a reference to the Charter Roll of 4 Edward III., infers that the grant of a mint and moneyer took place in that year, viz., 1330.

This should have induced Ruding to go to the fountain-head when he would have seen, even as we have done, that the reference is truly to the charter of 1 Henry II., inspected or recited in the confirmation of 1330.

The reason suggested by Rudder for the discontinuance of the coinage, whether “originating in his imagination” or not, seems to be

very probable. Ruding's want of knowledge of a coinage at Berkeley is presumably due to the fact that in his day not even the coins of Edward the Confessor of the mint had come to light.

APPENDIX.

The Charters.

I. Henricus Dei gratia Dux Normannorum et Aquitanorum et Comes Andegavorum omnibus Archiepiscopis, Episcopis, Abbatibus, Comitibus, Vicecomitibus, Baronibus, Iusticiariis et amicis fidelibus francis et Anglicis salutem. Sciatis me dedisse et concessisse Rodberto filio Hardingi et heredibus suis Berkelai et totam Berkelaihernesse manerium cum omnibus Appendiciis suis plene et integre sicut erat in tempore Henrici Regis avi mei tenendum in feudo et hereditate sibi et heredibus suis, de me et heredibus meis per servitium unius militis, vel si Rodbertus aut heredes sui melius voluerint, centum solidos reddant pro servitio militis per annum. Quare volo et precipio ut ipse Rodbertus et heredes sui predictum manerium et omnia pertinentia sua in ecclesiis, in nemoribus, in planis, in pascuis, in terris, in aquis, in viis, in semitis, et in placitis et in omnibus rebus et eventibus teneant in perpetuum habeant libere, quiete et honorifice, cum Tol et Tem et Soch et Sacke et Infanckenthes et cum omnibus libertatibus et liberis consuetudinibus suis, et quientantiis que ibi fuerunt in tempore Henrici Regis avi mei. Et preterea dedi et concessi eis habere in predicto manerio liberum marcheium cum omnibus libertatibus que ad marcheium pertinent quacumque die Septimane voluerint *et monetam cum proprio monetario suo*, et quando feci hanc donationem predicto Rodberto ipse dedit mihi quingentas marcas argenti de recognitione. Testibus Abbate Sancti Augustini de Bristow et Henrico Thesaurio, Willelmo Cumin, Rogero comite Herefordie, Ricardo de Humez constabulario, Maniser Biseth dapifero, Rodberto de Saltemareis [November 1153].

With fragments of seal of red wax in lawn bag. Original at Berkeley Castle.

II. Similar grant to Maurice, son of Rodbert Fitzharding [November 1153]. With fragments of seal of red wax in lawn bag. Original at Berkeley Castle.

III. Confirmation by King Henry II. of his grant No. I of Berkeley, etc., to Robert Fitzharding. Witnesses: Richard, Abbot of St. Augustine's, Bristol; Reginald, Earl of Cornwall; Roger, Earl of Hereford; Richard de Humez, Constable; Manaser Biseth, Steward; William, son of Hamund; Guarin, son of Gerold; Rodbert de Saltmareis [1154]. Original at Berkeley Castle.

IV. Confirmation by King Henry II. of his grant No. II, to Maurice, son of Robert Fitzharding [1154]. Same witnesses as in No. III. Original at Berkeley Castle.

V. Ricardus dei gratia Rex Anglorum Dux Normannorum Aquitanorum Comes Andegavorum Archiepiscopis, Episcopis, Abbatibus, Comitibus, Baronibus, Iusticiariis, vicecomitibus et omnibus Ministris et amicis et fidelibus suis francis et Anglicis salutem. Sciatis nos concessisse et presenti carta confirmasse Roberto filio Mauricii de Berkelai et heredibus suis Berkelai et totam Berkelai Hernesse quam Dominus Rex Henricus pater noster dedit avo suo Roberto filio Hardingi in feodo et hereditate per suo magno servicio Manerium scilicet cum omnibus appendiciis suis plene et integre sicut erat in tempore Henrici Regis avi patris nostri tenendum in feodo et hereditate sibi et heredibus suis de nobis et heredibus nostris per servitium quinque Militum et inde homagium ejusdem Roberti accepimus. Quare volumus et firmiter precipimus ut idem Robertus et heredes sui habeant et teneant predictum Manerium et omnia pertinencia sua in ecclesiis, in memoribus, in planis, in pascuis, in terris, in aquis, in viis, et semitis et in plijs et in omnibus rebus et eventibus in perpetuum libere et quiete integre et honorifice cum Tol et Them et soch et sacke et infangenthes et cum omnibus libertatibus et liberis consuetudinibus eis habere in predicto Manerio liberum Marcheium cum omnibus libertatibus que ad Marcheium pertinent quacumque die voluerint in septimana sicut carta domini Regis Henrici patris nostri testatur Preterea concessimus et confirmavimus predicto Roberto et heredibus suis Bediminstram cum omnibus pertinentiis suis et libertatibus et liberis consuetudinibus ad prefatum Manerium spectantibus sicut in carta Comitis Roberti Gloucestrie quam inde habent rationabiliter testantur T̃ Hugone Dunelm̃, Huḡ Cestr̃, Reginaldo Bathon Ep̃is, Coñ Wiñ de Mand̃, Ioh̃e Marescall̃, Roḡ de Witefeld̃, Hugone Bardulf̃, Galf̃r fit Petri, Huḡ Pantulf et Thoma Noel Dañ p manu Wiñi de Longo Campo Canceñ ñri xxvij die Septem̃r primo anno regni ñri apud Browd.

Is erat tenor prime carte nostre in primo sigillo nostro quod quia perditum fuit et dum capti essemus in Alemannia sub aliena potestate constitutum mutatum est.

Innovaçois vero testis sunt.

H. Archiepo Cantuar̃ .H. Archid̃ Cantuar̃, Wiñ Marescall, Wiñ de Aubinni, Roḡ Treigoz, Roḡ de Wanci, Wal̃ de Ely, Girard prochard, Riçus Revell, G. Warin fil Geroldi, Seer' de quenci, Thomas Basset, Riçus de Clifford et multis aliis. Dañ p manū Magri Rocelini tunc vicem agentis Canceñ apud Rupem, Andet̃ xvij die Novem̃r anno decimo regni nostri.

King's second seal attached. Original at Berkeley Castle.

VI. Iohannes dei gratia Rex Anglie, Dominus Hibernie, Dux Normannorum, Aquitanorum et Comes Andegavorum, Archiepiscopis, Episcopis, Abbatibus, Comitibus, Baronibus, Iusticiariis, vice-comitibus et omnibus ballivis et fidelibus suis salutem. Sciatis nos concessisse et presenti carta confirmasse Roberto filio Mauricii de Berkelay et heredibus suis Berkelay et totam Berkelay Hernesse quam dominus Rex Henricus pater noster dedit avo suo

Roberto filio Hardingi in feodo et hereditate pro suo magno servicio Manerium scilicet cum omnibus appendiciis suis plene et integre sicut erat in tempore Henrici Regis avi patris nostri tenendum in feodo et hereditate sibi et heredibus suis de nobis et heredibus nostris per servicium quinque militum. Et inde homagium ejusdem Roberti accepimus. Quare volumus et firmiter praecipimus ut idem Robertus et heredes sui habeant et teneant predictum manerium et omnia pertinencia sua in ecclesiis, in nemoribus, in planis, in pascuis, in terris et in aquis, in viis et semitis, et in placitis et in omnibus rebus et eventibus in perpetuum libere et quiete integre et honorifice cum tol et theam et soke et sake et Infangenetheof et cum omnibus libertatibus et liberis consuetudinibus suis et quietanciis que ibi fuerunt in tempore Regis Henrici avi patris nostri Preterea concessimus et confirmavimus eis habere in predicto Manerio liberum Marcheium cum omnibus libertatibus que ad Marcheium pertinent quacumque die voluerint in septimana sicut carta domini Regis Henrici patris nostri testatur Preterea concessimus et confirmavimus predicto Roberto et heredibus suis Bedminister cum omnibus pertinentiis suis et libertatibus et liberis consuetudinibus ad praefatum Manerium spectantibus sicuti carta Comitum Roberti Gloucestrie quam inde habent rationabiliter testatur et sicut carta Regis Ricardi fratris nostri rationabiliter testatur Testibus Witto Marescall Coñ de Pembroc, Gaufr̃ filio Petri Comite Esseñ, Hugone Bard, Willm Briwer, Robt de Turneham, Hugone de Neovill Dañ p manũ H. Canñ Archiepi, Cancellar nostri apud Westm̃ xviii die April Regni nostri anno primo.

A fragment only of this charter remains at Berkeley Castle, although the seal is fairly perfect. The text of the above is taken from the *Inspeximus* by Edward III., and confirmation dated 8th June, Anno 4 [1330]: No. VII post.

VII. Charter Roll, 4 Edward III., No. 62.

Pro Thoma de Berkele. Rex eisdem salutem. Inspeximus cartam celebris memorie domini Henrici quondam Regis Anglie progenitoris nostri in hec verba. [Here is set out Charter II at length]. Inspeximus etiam cartam bone memorie domini Ricardi quondam Regis Anglie progenitoris nostri in hec verba. [Here is set out Charter V at length.] Inspeximus etiam cartam bone memorie domini Iohannis quondam Regis Anglie progenitoris nostri in hec verba. [Here is set out Charter VI at length.] Nos autem donacionem concessiones et confirmationes predictas ratas habentes et gratas eas pro nobis et heredibus nostris quantum in nobis est dilecto et fideli nostro Thome de Berkele consanguineo et heredi predicti Roberti et heredibus suis concedimus et confirmamus sicut carte predictae rationabiliter testantur et pro ut idem Thomas Maneria terras et tenementa predicta hactenus tenuerunt ac libertatibus predictis rationabiliter usi sunt et gauisi Preterea volentes eidem Thome gratiam facere ampliorem concessimus pro nobis et heredibus nostris eidem Thome quod ipse et heredes sui imperpetuum habeant retorna omnium brevium quorumcunque

infra hundredum suum de Berkele. Ita quod nullus vicecomes ballivus seu minister noster vel heredum nostrorum hundredum illud ingrediatur ad summonaciones attachiamenta seu districciones vel ad aliqua alia officia infra hundredum predictam retorna hujusmodi brevium tangencia excecucenda vel facienda nisi in defectum ipsius Thome vel heredum suorum seu balliorum aut Ministrorum suorum ibidem. Quare volumus et firmiter praecipimus pro nobis et heredibus nostris quod idem Thomas et heredes sui imperpetuum habeant retornæ omnium brevium nostrorum et heredum nostrorum tam de summonicionibus scaccarii quam aliorum brevium quorumcunque infra hundredum suum de Berkele. Ita quod nullus vicecomes Ballivus sui Minister noster vel heredum nostrorum hundredum illud ingrediatur ad summoniciones attachiamenta seu districciones vel ad aliqua alia officia infra hundredum predictum retorna hujusmodi brevium tangencia exc'cend' vel facienda nisi in defectum ipsius Thome vel heredum suorum seu balliorum aut Ministrorum suorum ibidem sicut predictum est. Hiis testibus venerabilibus patribus H. Lincolñ Eþo Cancellar' nostro, B. Coventr' et Lichef Eþo, Iohẽ de Eltham Comite Cornub' fratre nro carissimo, Henrico Comite Lancast', Iohẽ de Warennā Comite Sur', Olivero de Ingham, Iohẽ Mautravers Senescallo hospicii nostri, et aliis Da' p manũ nrām apud Wodestok VIII die Iunii.

THE "GOTHABYRIG" MINT.

By P. W. P. CARLYON-BRITTON, F.S.A., *President*.



ALTHOUGH this mint is so styled by Hildebrand in his *Anglo-Saxon Coins in the Royal Swedish Cabinet of Medals at Stockholm* (1881), and by Sir John Evans in his paper on "The Mint of Gothabyrig" (*Num. Chron.*, 3rd series, vol. xv), the proper form of the name in the nominative case is, as we shall see directly, *Gioðaburh*.

As regards the terminal—"burh," this form appears in the *Peterborough Chronicle*, while "buruh" occurs in the *Evesham Chronicle* and "burg" in that of Winchester.

On one of the coins hereinafter described the reading of the mint name is sufficiently full to disclose the form *GOÐABYRI* = Gothabyri, doubtless for Gothabyrig.

This form, however, is on the coin quite correct, as the word *on* = at, following the name of the moneyer and preceding that of the place of mintage, governs the locative or dative case, and byrig is the dative of burh.

The A.-S. *on*, *an*, is identical in meaning with the High German *an*. With towns declined in the dative it means "at"; with countries so declined it means "in." It only means "of" when used in such phrases as "biscop on Hrofeceastre," and in these instances our idiom has changed.

In reference to this point Mr. C. F. Keary, in his introduction to vol. ii of the *British Museum Catalogue of Anglo-Saxon Coins*, writes, after quoting the forms *Serebyrig* or *Serebirig* for Salisbury :

"These forms are no doubt, properly speaking, those of the oblique case. But it is equally certain that (like the Celtic *Kil* in

place-names, which is also an oblique case) this is the form of the word which survived the longest, and that from this termination 'byrig' in Æglesbyrig, Cadanbyrig, and the rest, the modern forms Aylesbury, Cadbury, etc., are derived. The Latin writers nearly always use this form, and we have in them frequently such phrases as 'quod Glastingabyrig nuncupatur,' 'quod Sceftesbyrig nuncupatur,' 'qui Searesbirig nominatur.'

With deference to Mr. Keary, it is suggested that the Latin writers referred to were not well acquainted with the niceties of Anglo-Saxon inflection, and therefore copied the place-names as they appeared in the Anglo-Saxon originals, without regard to the words there governing their case.

Bæda, in referring to Tilbury in the passage hereafter quoted, writes correctly "quæ Tilaburg cognominatur."

The "bury" is due to the Anglo-Saxon custom of prefixing the prepositions *æt* or "in" to the place-name which falls into the dative case and sometimes coalesces with the preposition.

In the catalogue itself Mr. Grueber (Mr. Keary's collaborator) has in naming the Anglo-Saxon "burhs" adopted the dative form "byrig" throughout, but in the case of places having the termination "ceaster" he sometimes gives the nominative "ceaster," at others the dative singular "ceastre"; in the case of those ending in "ford," the nominative "ford," or the dative "forda," and so forth.

The following is a list of the readings of the reverses of the coins catalogued by Hildebrand as of "Gothabyrig."

Æthelræd II.

No.					
1131.	+GODA ON GOÐABYRI	...	...	Type A.	
1132.	+VLFMÆR ON GVÐA	...	...	" "
1137.	+VLMÆR ON GOÐA	...	...	" "
1133.	+VLFMÆR MFO GEOÐA	...	...	" D.	
1134.	+ " " " "	...	...	" E.	
1135.	+ " " " "	...	...	" "(see figure A. ¹)	
1136.	+ " MFO GOÐA	...	...	" "

¹ Original in the British Museum.

Cnut.

No.					
999.	+CARLA ON GIOÐ	...	...	Type E.	
1001.	+ÞVLFMÆR O GIOÐ	...	...	" "
1002.	+ " ON IOÐA	...	...	" "
1003.	+ÞVLMÆR O IOÐA	...	...	" "
998.	+ÆLFVARD ON GOÐA	...	...	" I.	
1000.	+LEOMÆR ON GEOÐ	...	...	" „(see figure B. ¹)	

Harold I.

No.					
255.	+LEOFMÆR ON IOÐAB	...	...	Type A.	
256.	+LEOMÆR ON IOÐ	...	...	" B.	
257.	+ " " IOÐA	...	...	" "



FIGURE A.



FIGURE B.

The tabular list appended contains an analysis of the forms adopted by the several moneyers to express the place of mintage :

Moneyers.			Homogeneous Forms.			Irregular Forms.	
Goda.						Goða	
Þulfmær	...	...	Gioð	Ioða	Geoða	Goða	Guða
Carla	...	...	Gioð	—	—	—	—
Ælfward	...	...	—	—	—	Goða	—
Leofmær	...	...	—	Ioð	Geoða	—	—
"	...	...	—	Ioða	—	—	—

From this list it will be seen that the correct form of the name is *Gioðaburh*, and that the extant coins of the mint are confined to the three successive reigns of *Æthelræd II.*, *Cnut*, and *Harold I.*, covering a period of sixty-one years, namely, from A.D. 979 to A.D. 1040.

¹ Original in Mr. Carlyon-Britton's collection.

The comparison of the diphthongs *īo*, *ēo* may here be considered with advantage.

In Beowulf, the unique MS. of which, namely, *Vitellius A xv*, was written according to Dr. Moritz Steyne in the tenth century, the A.-S. adverb for "formerly" appears as *geo*, *gio*, *iu*, respectively, at lines 1476, 2459, 2521. The hero's name is spelt "Bêowulf" by the first scribe, and "Biowulf" by the second. In various MSS. of "King Alfred's" Old English Version of Boethius's *De Consolatione Philosophiæ*, ed. W. J. Sedgefield 1899, the adverb "formerly" appears as *gêo*, *gîo*, *gîi*, *îu*; and Thorpe in his *Analecta Anglo-Saxonica*, 1868, p. 236, prints the form *gyû*.

In the Saxon Menology appended to Mr. Plummer's edition of the Chronicles, vol. i, the word "Yule" appears as "gêola," "iûla," l. 221; and these words show pretty clearly that *g* and *i* in *gio*, *geo*, and *io* were pronounced like the modern Y, used as a consonant.

For these reasons it is considered that *Gioð*-, *Ioð*-, and *Geoð*- may be regarded as true forms and the others as irregular forms.

Having now to some extent dealt with the forms of the mint-name, let us consider what information is to be gathered from the names of the moneyers.

Wulfmær coined for Æthelræd II. and Cnut, and Leofmær for Cnut and Harold I. Goda occurs under Æthelræd II. only, as do Ælfward and Carla solely under Cnut.

Each of these names occurs also as of London under the respective reigns, save that of Leofmær, who, under *Harold I.* appears as of *Gioðaburh* only. It is, therefore, not unreasonable to suppose that *Gioðaburh* looked to London for its supply of moneyers. In any case the existence of all the *Gioðaburh* names contemporaneously at London, apart from this suggestion, removes the chance sometimes available of gathering information as to the locality of a mint from the names of the moneyers who coined at it.

The determination of the geographical position of the *Gioðaburh*, *Geoðaburh*, *Goðaburh*, *Guðaburh*, or *Ioðaburh* of the coins must, therefore, be effected by other means.

Hildebrand identifies it with Jedburgh in Roxburghshire, but

Jedburgh was in Anglo-Saxon times Jedworth. Mr. C. T. Martin in *The Record Interpreter*, gives the Latin form Gedewurda for Jedburgh, and Mr. C. F. Keary, in his introduction to the catalogue above referred to, cites the following Anglo-Saxon forms of the name :—

Gedword, Geddewerde, Gedewurth, etc.

Hildebrand appears to have assumed the identity of the Gioðaburh of the coins with *Iudanburh*, mentioned in the *Anglo-Saxon Chronicle* and elsewhere, and to have followed Messrs. Raine and Dixon (Archbishops of York, vol. i, p. 116) and Mr. Benjamin Thorpe in, as is thought, wrongly identifying Iudanburh with Jedburgh.

Mr. Keary does not regard the identification of Iudanburh with Jedburgh as satisfactory, and this view is supported by Sir John Evans, who accepts the identification of the Iudanburh of the *Chronicle* with the Gioðaburh of the coins, but rejects the identification with Jedburgh.

With these conclusions, and the arguments adduced in support, the present writer entirely agrees.

The following is the passage in the *Anglo-Saxon Chronicle* making reference to Iudanburh :—

An. DCCCC. LII. Her on þyssum geare het Eadred cyning gebringan Wulstan arcebiscop in Iudanbyrig on þam fæstenne forþæm he wæs oft to þam cyninge forwreged.

This Mr. Thorpe translates as follows :—

“An. DCCCC. LII. In this year King Eadred commanded archbishop Wulfstân to be brought into the fastness at Jedburgh, because he had been often accused to the King.”

Under the year 954 the state of affairs in Northumbria and the fate of Archbishop Wulfstân are elucidated in a further passage from the *Chronicle* :—

“An. DCCCC. LIV. In this year the Northumbrians expelled Eric, and Eadred assumed the Kingdom of the Northumbrians. In this year Archbishop Wulfstân again received a bishopric, at Dorchester.”

In reference to these passages Sir John Evans remarks with much force :—

" Assuming for a moment that Jedburgh, in an outlying northern district of Northumbria, had at some time been within the power of Eadmund and Eadred, can anyone believe that the latter would commit the unruly archbishop for safe custody to a place on the other side of the kingdom of Northumbria, which, moreover, whether under Anlaf or Yric, was in active rebellion against him ? "

For these reasons Sir John Evans thinks that it is evident that Iudanburh should be sought for farther south and, after very properly dismissing his own first idea, that of Dewsbury, as " valueless," and subsequently showing Mr. W. H. St. John Hope's suggestion of Udeberge, Udesberg, or Udeburg of Domesday (now Woodborough, in Nottinghamshire) to be " impossible," he selects Idbury in Oxfordshire as the only existing modern name most likely to represent the Gioðaburh of the coins. His concluding words are :—

" On the whole I am inclined to accept Idbury provisionally as the modern representative of Giothabyrig, and thus to add another mint to those which are already known to have existed in Oxfordshire."

It will be seen that Sir John Evans does not appear to be very firmly satisfied with the attribution of Gioðaburh to Idbury, and it must be admitted that this circumstance has encouraged the present writer to seek for another attribution.

In Domesday Idbury is written *Ideberie*, and in view of the fact that there are less than fifty years between the last issue of Gioðaburh coins and the preparation of that record the *I* of the Domesday form of Idbury must be regarded as organic until it has been proved to be otherwise. Consequently Sir John Evans's identification of Id = Idé, with Êod, Iud-, Iuth- may safely be rejected.

In the Laud MS. of the *Anglo-Saxon Chronicle*, which was written about 1120, forms in êo are retained.

The examples are very numerous, but the following five instances are sufficient to illustrate the user.

Annal :

- 1091, â-bêodan, to order.
- 1123, dêorfald, a deer-fold.
- 1118, fêond, enemy.
- 1081, gefrêode, made free.
- 1093, lêofstan, dearest.

It therefore seems to be clear that *iud* (an) of A.D. 952 and *Géoð*(an) of 1040 could not have been represented in 1087 by *Id* (é).

If not at Jedburgh, Dewsbury, Woodborough, or Idbury where then is *Gioðaburh* ?

For the reasons hereafter given, it is confidently thought that *Gioðaburh* or *Iudanburh* is no other than the lost city of Ythanceaster.

The earliest mention of the Anglo-Saxon form of the name of this place occurs in Bæda's *Historiæ Ecclesiasticæ* printed in *Monumenta Historica Britannica*, 1848. Bæda, or, as he is generally called, the Venerable Bede, was born in 673 and died in A.D. 735.

At p. 195 this passage (Lib. III, cap. xxii) occurs :—

"Cedd fecit per loca ecclesias, presbyteros et diaconos ordinavit, qui se in verbo fidei et ministerio baptizandi adjuvant, maxime *in civitate quæ lingua Saxonum 'Ythancaestir' appellatur*. Sed et in illa quæ Tilaburg cognominatur; quorum *prior locus est in ripa Pentæ amnis*, secundus in ripa Tamensis : etc."

Against the name Ythancaestir is a reference to a note taken from Smith's edition of Bæda's works which, translated, reads "which was called Othona" by the Romans, now "St. Peter's on the Wall situate at the extreme point of Dengy Hundred."

Another note identifies the river Penta with the present Froshwell and states that one of its sources retains the genuine or real name "Pante," although to-day both stream and city have been absorbed.

Similar information is to be gathered from Camden's *Britannia*, the first edition of which, in Latin, appeared in 1586, another edition, translated into English by Philémon Holland, was produced in 1637, and yet another edition by Richard Gough was issued, with his own additions, in 1789.

From the 1789 Edition, vol. ii, p. 43, is the following extract :—

"Higher up the north shore [of the Hundred of Dengy], was anciently a considerable city called Ithancestre, Radulphus Niger after Bede (*Hist. Eccl.* III, c. 22) writes that 'bishop Ceadra baptized the East Saxons near Maldon in the City Ithancester on the banks of the Pant which runs by Maldon in the province of Dengy; but now that city is overflowed by the Pant.' The exact place I [Wm. Camden] cannot point out; but I have no doubts that the present river Froshwell was formerly called Pant, one of its sources being called Pantswell, and the monks of Coggeshall have said the same. Some will have it that Ithancester was in the extremity of this hundred [Dengy] where now is *St. Peter's upon the wall* or bank; the shore hereabouts being with difficulty fenced against the encroachments of the sea by banks. However I am apt to think that this Ithancester was OTHONA, where the *Numerus Fortensium*, with their commander, was stationed in the decline of the Roman empire under the *Comes Littoris Saxonici*, or Count of the Saxon shore, against the Saxon pirates. The alteration from Othona to *Ithana* is easy, and its situation on a bay where many rivers empty themselves was very proper for this purpose."

At page 53, amongst the additions of Mr. Gough, we find the following:—

"In support of Mr. Camden's opinion that Ithancester was near Bradwell we must observe that the Domesday name of this place is Effecestra. Holland [the editor of the 1637 edition of Camden] tells us that there yet remaineth a large ruin of a thick wall whereby many Roman coins have been found."

To continue the series of quotations from recognised authorities we find in the new *Victoria History of Essex*, vol. i, p. 391, the remark by Dr. J. Horace Round, in his account of the Domesday Survey:

"I have identified the two portions of which 'Effecestre' was composed in 1086 as the manors of Battaills and of East Hall. The latter was in the eastern portion of the parish towards the chapel of 'St. Peter-on-the-Wall' which marks the site of 'Ithancestre.' The test of 'pasture for sheep' applies here again; for we read that 'Effecestre' had 'pasture for 500,' and the marshes of Bradwell lie on its eastern side."

In the same modern work, p. 316, in treating of "Anglo-Saxon Remains," Mr. Reginald A. Smith remarks:

"Facing the mouth of the Colne and guarding the estuary of the Blackwater was the fortress of Othona or Ithanceaster, now located with general approval at Bradwell-on-Sea."

Bæda speaks of Cedd, not his brother Ceadda, afterwards canonised as St. Chad, in connection with the city which in the Saxon tongue is called "*Ythancaestir*," and is situate on the bank of the River Pant.

Radulphus Niger, quoted by Camden, adds that this city was near Maldon, but then was overflowed by the Pant.

Camden suggests that *Ythancaestir*, which he terms Ithancester, was *Othona*, and gives as reasons that "the alteration from Othona to Ithana is easy, and its situation on a bay where many rivers empty themselves was very proper for this purpose," viz., the station of the Count of the Saxon shore.

We do not know the quantity of the vowels in the name Othona. If derived from *Ōthō*, the pronunciation should be *Ōthōna*, which would make the change to *Īthāna* a very difficult one. Some reliable Essex antiquaries, including Mr. Henry Laver, F.S.A., pronounce the word *Ōthōna*, and, if this be correct, the alteration to *Ythān* is easy, even as Camden remarks.

Although later in date than the first edition of Camden's *Britannia*, the following lines from Michael Drayton's *Poly-Olbion*, taken from the folio edition of 1622, are of interest as identifying the Pant (the "*Penta amnis*" of Bæda) with the Blackwater:—

"When Chelmer scarce arrives in her most wished bay,
But Blackwater comes in through many a crooked way,
Which Pant was call'd of yore, but that by time exil'd,
The Froshwell after hight, then Blackwater instill'd."

The manor of East Hall, the "*Effecestre*" of Domesday, wherein are the remains of the Roman camp and the chapel built on one of its walls, is on the extreme eastern coast of Essex, close to the North Sea, and practically on the southern shore of the estuary of the Blackwater River.

Dr. Round and Mr. R. A. Smith appear to have accepted the statements of Camden and Gough without question.

The Rev. Dr. Cox, in a very pleasing article contributed to *The Builder* of September 15th, 1906, sees in the chapel of St. Peter the very church erected by Bishop Cedd at Ythanceaster, and he, too, does not question the identity of Ythanceaster with Othona.

Although, as is usual in all antiquarian subjects, opinions widely differ as to the date of this building, it is possible that it was erected by Cedd's instructions, although structures of this period would, in ordinary circumstances, probably have been of wood rather than of stone; the undoubted fact that stone and brick would have been readily obtainable from the materials composing a Roman station is a point greatly in favour of Dr. Cox's view of the age of the edifice, a view which is shared by Mr. Laver and Mr. W. H. St. John Hope.

It is probable that the Iudanburh mentioned in the *Anglo-Saxon Chronicle* under the year A.D. 952 is identical with Ythanceaster. Apart from the terminations "ceaster" or "burh," the names are practically the same. "Ceaster" has a Roman derivation, but "burh" is the Saxon equivalent, each meaning a fortified place.

A convincing example of such a change of appellation is afforded by the case of the city of the Primate of All England, called by Bede "Dor-uuernis Civitas," in the Peterborough Chronicle both "Dor-wicceaster" and "Cantwara-burh," and now Canterbury. Again, Bath is called "Acemannes-ceaster" in the Winchester Chronicle, "Acemannes-burh" in the Canterbury Chronicle, and the words "æt Baðum tune" occur in the Evesham Chronicle. Similarly, Gaimar, in his *History of the English*, calls Grantebrycg "Grantecestre"; and Henry of Blois, Abbot of Glastonbury and Bishop of Winchester, speaks of Ilchester as "Givelcestriburg." The Saxon "burh" in all likelihood replaced the Roman "ceaster" in connection with Ythanceaster at the time of the adoption of the name Cantwara-burh for the Kentish city, a time well in advance of the reign of Æthelræd II. when our first known Gioðaburh coins occur.

In reference to the matter of place-name formation the discredited Jedburgh is of use to us. In early times it was Jedworth, *weorðig* and *worð* signifying "a field, farm or estate," while later, it was

promoted to Jedburgh, the "burgh" signifying a fortified place, and therefore a more secure and, consequently, more important site. This is evidently a case of a town's rise, but as has been said, the change from "ceaster" to "burh" may well be referred solely to a change of race ownership. The Roman was forgotten in the then present importance of the Saxon. As already stated the tale of the destruction of Ythanceaster is preserved to us by the mediæval writer, Ralph Niger. The fate of Ythanceaster is illuminated by that of Dunwich and many another place on the eastern coast. To-day Cromer is threatened with a like destiny—absorption by the grim and ever-advancing German Ocean. Possibly some attempt was made to keep the town's head above water, and that a gradual retreat of its inhabitants inland took place. Mr. Laver testifies that many years ago, when he made a journey of investigation to St. Peter's flats or sands, to the east of the chapel of St. Peter, he found abundant evidence of the existence of ancient foundations of buildings by probing the mud now covered, except at low tide, by the sea. These probably constituted the Saxon city of Ythanceaster, of which even the original Roman fortress is in great part destroyed by the advancing sea.

A similar case to that of Ythanceaster, occurring in Plantagenet times, is that of Winchelsea.

As to when the sea-flood that overwhelmed Ythanceaster took place there is no evidence, except that the coinage there ceased in the reign of Harold I. No coins thence emanating are known of his successor, Harthacnut, and, what is more significant, there are none of Edward the Confessor.

The significance lies in the facts that Harthacnut reigned for a short time only, and that his coins have not been preserved to us in large quantities, whilst those issued in the substantially longer reign of his successor have been discovered in considerable bulk. These hoards were buried in the troubled times of the invasion and conquest of England by William, Duke of Normandy.

Ythanceaster was, therefore, probably destroyed by its foe, the sea, or reduced to no importance, prior to the middle of the eleventh century.

Under the year A.D. 1014 the *Anglo-Saxon Chronicle* records that—

"on St. Michael's mass eve (Sept. 28) came the great sea-flood widely throughout this country, and ran so far up as it never before had done, and drowned many vills, and of mankind a countless number."

It is highly probable that so exposed a place as Ythanceaster suffered from this calamity, but as its coinage was continued under Cnut and Harold I., say for a quarter of a century subsequently to this event, the destruction was not total, or a retreat, and partial reconstruction, took place. The advance of the sea was doubtless slow and sure, an advance hastened by an exceptionally high tide or violent storm. Such a storm occurred at a date which synchronises exactly with the cesser of the Gioðaburh coinage, as the Chronicle relates under the year 1039, and as the opening sentence of the record, "In this year was the great wind." If this were from the north-east or east its effect on Gioðaburh can be appreciated by the modern inhabitants of our east-coast seaports.

To revert for one moment to the scene of Archbishop Wulfstân's captivity in the year 952, Sir John Evans, in his oft-quoted paper, writes, in support of his attribution of Gioðaburh or Iudanburh to Idbury :

"Moreover, if the scene of Wulfstan's captivity were at Idbury, there would appear to have been some reason for his being, on his release, restored to episcopal honours at Dorchester, instead of in the cathedral town of some more northern diocese. For Dorchester, the centre in Saxon times of an important bishopric, is less than thirty miles from Idbury, and is situate within the same county of Oxford."

This, to speak moderately, is at least as specious an argument as any that has been employed in this present paper, and it can be met by the alternative suggestion that it would have been much easier for King Eadred to remove his disaffected prelate from York to Ythanceaster by sea than to transport him overland to so out-of-the-way and obscure a place as Idbury.

Should it be thought that the facts adduced in this paper are sufficient to establish the transfer of the site of Gioðaburh from Idbury in Oxfordshire to the formerly well-known and important Ythanburh

or Ythanceaster of Essex, Oxford may be to some extent mollified by the circumstance that the present writer has essayed to preserve to the great University city its cherished coins of Alfred the Great and to prevent their transference by one of its citizens to some unlocated northern mint.¹

It only remains for the writer to record a sense of his indebtedness to his colleague, Mr. Alfred Anscombe, for valuable help most kindly accorded in connection with philological and other questions arising during the composition of this paper.

¹ See "The Oxford Mint in the reign of Alfred," *British Numismatic Journal*, vol. ii, pp. 21-30.



THE BEDFORD MINT.
WILLIAM I. FIGURES 1 to 7.
WILLIAM II. FIGURES 8 to 12.

A NUMISMATIC HISTORY OF THE REIGNS OF
WILLIAM I. AND II. (1066-1100).

PART II.

By P. W. P. CARLYON-BRITTON, F.S.A.—*President.*

THE HISTORIES OF THE MINTS.

BEDFORDSHIRE :—*D.B. Bedefordscire.*

BEDFORD :—*D.B. Bedeford.*

THIS ancient county borough gives its name to the shire of which it is the capital. It is situate on the river Ouse, the more ancient part of the town being on the northern bank. It is fifty miles N.N.W. from London and now has a population of over 35,000, whereas in 1837 the number of its inhabitants was 5,466.

The *Anglo-Saxon Chronicle* records that in the year 571, Cutha, who was the brother of Ceawlin, King of Wessex, fought against the Britons at Bedford, *Bedcanforda*, and took from them four towns. In early Saxon times Bedfordshire seems to have belonged in part to Mercia and as to the remainder to Wessex, but after the treaty of Chippenham, in A.D. 878, the whole was included in Guthrum's Kingdom of East Anglia.

During his wars with the Danes, Eadweard the Elder, before the 11th of November, 919, went with an army to Bedford and gained the burgh. He remained there four weeks and commanded the burgh on the *south* side of the river to be built.

Two years later Bedford was attacked by an army of Danes from Huntingdon and by the East Angles, but the garrison made a successful sortie and put the enemy to flight.

The name of this town first appears on the coins of Eadwig, A.D. 955–959, but as most of the money of Eadred, A.D. 946–955, of Eadmund, A.D. 939–946, much of that of Æthelstan, A.D. 925–939, and nearly all that of Eadweard the Elder, A.D. 900–925, bore the names of the moneyers only, without reference to their mints, it is not improbable that coins earlier than those of Eadwig emanated from Bedford, and a critical comparison of the names on his coins with similar names on those of his predecessors raises an assumption that the foundation of the mint was either co-eval with or followed very shortly after Eadweard's visit to Bedford in A.D. 919.

However this may be, certain it is that the name of this town appears on the money of all Eadwig's successors to the English throne down to the Norman Conquest.

Immediately prior to that event, Bedfordshire was within the territory of Earl Gyrth, but the town of Bedford was a free borough.

In Domesday Book the remarkably short paragraph referring to this place stands significantly at the immediate head of the record relating to Bedfordshire, taking precedence of the list of the King's tenants in chief and the record of his own lands.

The following is a translation of the entry : vol. i, folio 209a :—

Bedeford [Bedford] was assessed as a half hundred in King Edward's time, and it is so now for the host and the ship service.

The land of this vill was never divided into hides, nor is it now, except one hide which belonged to the church of St. Paul in almon in King Edward's time, and now belongs (thereto) of right. But ¹Bishop Remigius put it out of almon (and tenure) of the church of St. Paul, unjustly as the men say, and now holds it and all that belongs to it. It is worth 100 shillings.

As no mention is made of the mint or moneyers it follows that the King received no revenue from such sources, and from this it is probably right to infer that the burgesses, both in Saxon times and under William I., had the privilege of a mint under the general terms of Æthelstan's laws on the subject, and that any payments in respect thereof were covered by the assessment of the borough to the Danegeld as a half hundred and its similar assessment in William I.'s

¹ Bishop of Dorchester from 1067 to 1092.

reign for payment of the imposts necessary to maintain the army and navy.

The lands of the Burgesses of Bedford are set out in Domesday amongst those of the tenants in chief of the King, where they are specified at the end of the record relating to Bedfordshire.

Although many names are mentioned, those of the Bedford moneyers, Sibrand and Sigod, whose names are very distinctive, do not appear, nor indeed is either of them referred to throughout the record relating to Bedfordshire.

Hugh de Beauchamp, as successor to Ralf Tallebosc, was the holder of one of the greatest lay fiefs in Bedfordshire. This constituted a feudal barony which remained with the Beauchamps until the last of the line fell at Evesham in A.D. 1265.

There is nothing, however, in Domesday to show a connexion between Ralf Tallebosc or Hugh de Beauchamp and the town of Bedford, nor does any mention occur in history of the castle of Bedford until its siege by Stephen in A.D. 1136.

As Type I of William I.'s coins was issued at Bedford and also Type 1 of his successor, it would seem that the burgesses of Bedford did not resist the might of either King, but conformed to any requirements for the continuance or confirmation of their ancient rights.

During both reigns under consideration it may be presumed that Bedford preserved the even tenor of its way and continued to issue each succeeding type of coin.

Those not hitherto noted are Types VI and VII of William I. and Types 3 and 5 of William II.

N.B.—* placed before a reading indicates that the coin bearing it is in the British Museum.

† placed before a reading indicates that the coin bearing it is in the collection of the present writer.

WILLIAM I

Type I :—

† * **SIBRAND ON BEDI.** Plate V, Fig. 1.

" " " **BEDE**, William Allen Sale, 1898, Lot 300.

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Type II :—

- † * ♣ **SIGOD ON BEDEFO**, also Lieut.-Col. H. W. Morrieson ;
York Find, 1845. Plate V, Fig. 2.

Type III :—

- ♣ **SIBRAND ON BEDE**, William Allen Sale, 1898, Lot 300.
" " " **BEDEF.**
♣ **SIGOD ON BEDEFOR**, Gardiner Sale, 1870, Lot 561.

Type IV :—

- * ♣ **SIGOD ON BEDEFORD**. Plate V, Fig. 3.

Type V :—

- * ♣ **SIGOD ON BEDEFOR**. Plate V, Fig. 4.

Type VI :—

No example hitherto noted.

Type VII :—

No example hitherto noted.

Type VIII :—

- * ♣ **SIBRAND ON BD**, Beaworth, 5. Plate V, Fig. 5.
" " " **BEDF**, Beaworth, 11. Plate V, Fig. 6.
* ♣ **SIBRAND ON BEDEI**, Beaworth, 6. Plate V, Fig. 7.

WILLIAM II.

Type 1 :—

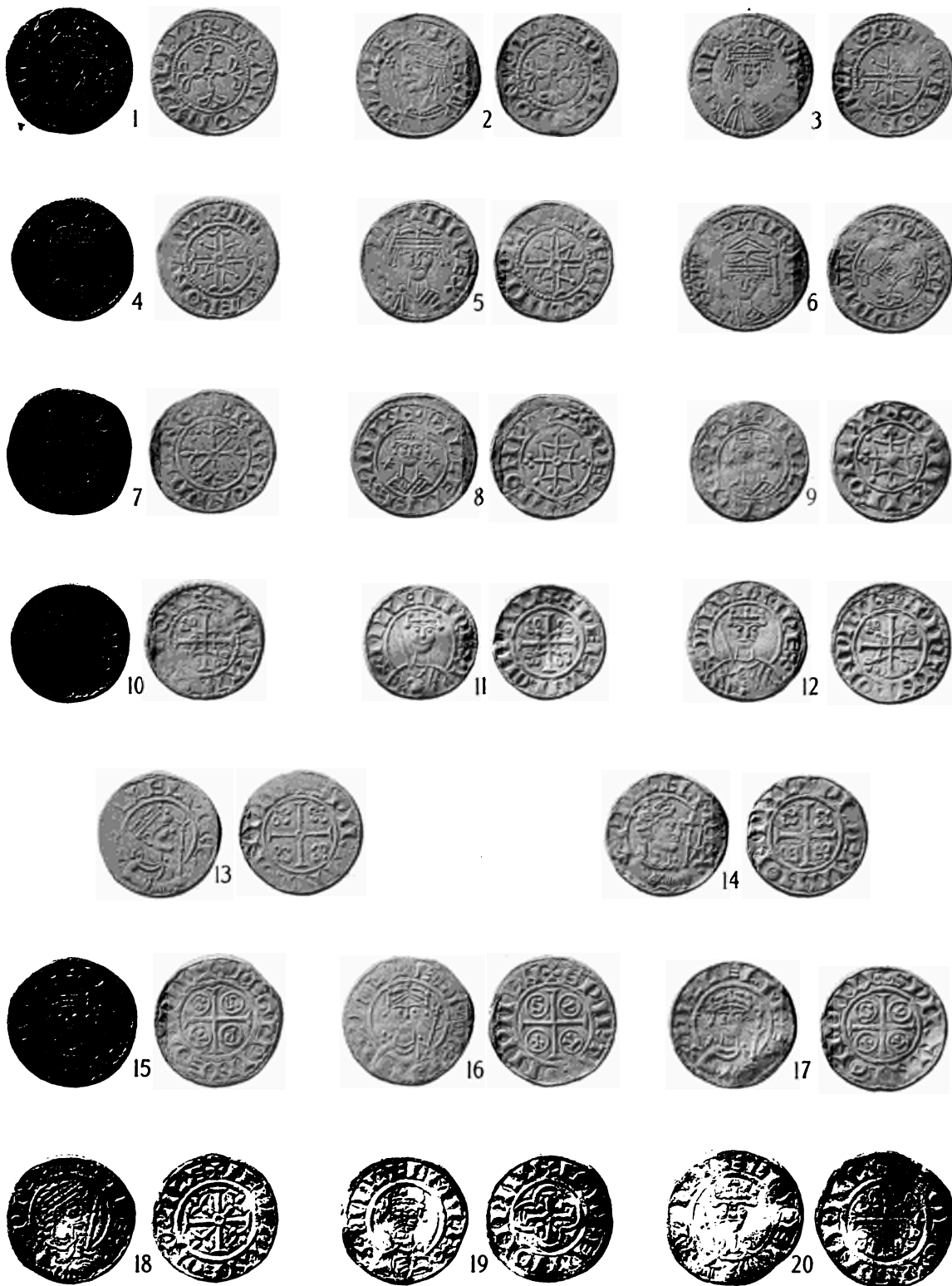
- * ♣ **LIFPI ON BEDEFRI**, Tamworth Find. Plate V, Fig. 8.
♣ **SIGOD ON BEDEFRD**, Tamworth Find.
† " " " **BEDEFRI**. Plate V, Fig. 9.

Type 2 :—

- * ♣ **GODRIC ON BEDFRI**, Tamworth Find. Plate V, Fig. 10.
† ♣ **SIGOD ON BEDFRI**. Plate V, Fig. 11.

From Montagu Sale, 1896, Lot 250. This coin is over-struck on one of Type 1.

The coin of Type 2 read in the account of the Tamworth Find *** LIFPINE ON BE**, and assigned by the British Museum authorities to Bedford, proves, on examination, to, in fact, read *** LIFPINE ON DRBI**. It is from the same dies as the second specimen in the British Museum which is there correctly attributed to Derby.



THE WALLINGFORD MINT.

WILLIAM I. FIGURES 1 to 17.

WILLIAM II. FIGURES 18 to 20.

Types 3 and 4 :—

No examples hitherto noted.

Type 5 :—

† * **SIGOD ON BEDFRI.** Plate V, Fig. 12.

From William Allen Sale, 1898, Lot 351. Also illustrated, vol. ii, Plate IV, Fig. 77.

BERKSHIRE :—*D.B. Berrochesscire.*

WALLINGFORD :—*D.B. Walingeford.*

In Saxon and Norman times this ancient county borough was by far the most prominent place in Berkshire. Situate at an important ford over the Thames, about 45 miles west from London, it had in 1837 a population of 2,093, and the number of inhabitants now is only about 2,800. If the name be Saxon its literal translation is *forda*, the ford, *Wallinga*, of the people of Wales. In early Saxon days the Thames constituted the northern boundary of Wessex, and, prior to the victory by Cutha, in 571, over the Britons, the description was just in accordance with the then facts.

The *Anglo-Saxon Chronicle*, under the year 1066, relates that after the battle of Hastings, 14th October, Count William went afterwards again to Hastings, and there awaited whether the nation would submit to him; but when he perceived they would not come to him, he went up with all his army which was left to him, and what had afterwards come oversea to him, and harried all that part which he passed over, until he came to Berkhamstead.

Professor Freeman, in his *William the Conqueror* (Macmillan and Co., Ltd., 1898) says, p. 95 :—

"He [William] marched on, ravaging as he went, to the immediate neighbourhood of London, but keeping ever on the right bank of the Thames. But a gallant sally of the citizens was repulsed by the Normans, and the suburb of Southwark was burned. William marched along the river to Wallingford. Here he crossed, receiving for the first time the active support of an Englishman of high rank, Wiggod of Wallingford, Sheriff of Oxfordshire. He became one of a small class of Englishmen who were received to William's fullest favour, and kept at least as high a position under him as they had held before."

The *Anglo-Saxon Chronicle*, under the year 1079, relates how that Robert, the eldest son of King William, fought against his father, wounding him in the hand, in a battle near the Castle of Gerberoi. In this same fight William's horse was shot under him, and Toki, son of Wiggod, who brought another to him, was straightway shot with a cross-bow.

We do not know the date of Wiggod's own death, but, as no mention of him occurs in the Domesday account of Wallingford, he was doubtless dead before the year 1086. Toki seems to have been his only son, as Agatha, his daughter and heiress, married Robert de Olgi (D'Oily).

Their daughter and heiress, Maud, married Miles Crispin, who in her right, became possessed of large estates in Berkshire and Oxfordshire, including the constableness of Wallingford Castle. Abundant remains of the earthworks constituting the castle and the walls of the borough exist at this day.

The Domesday account of Wallingford is a lengthy one, occupying two entire columns. It stands at the head of the Survey, after the list of tenants in chief, but before the account of the *Terra regis*.

From this account the following¹ translated extracts are of interest :—

“In the borough of Wallingford King Edward had 8 virgates of land, and in them were 276 closes yielding 11 pounds from rent, and they who dwelt in them used to do service for the King with horses or by water as far as Blidbery (Blewbury), Reddinges (Reading), Sudtone (Sutton Courtenay) or Besentone (Bensington), and to those who did this service the reeve gave hire or payment not from the dues paid to the King but from that paid to him. There are all the customary dues in this borough now as there used to be ; but of the closes 13 are gone ; 8 were destroyed to make the castle, and a moneyer has one quit of service so long as he does the coining.

“From these 13 the King receives no dues. . . . King Edward had 15 acres on which housecarles were settled ; these Miles Crispin holds, by what warrant is not known. . . .

“In the time of King Edward it was worth £30, and afterwards £40 ; now it is worth £60, and yet it yields from the ferm £80 by tale. . . .

¹ *Victoria County History of Berkshire.*

"When geld was paid in the time of King Edward by Berkshire as a whole a hide gave $3\frac{1}{2}d.$ before the feast of Nativity of the Lord and the same sum at Pentecost. If the King was sending out an army anywhere only one knight went out from each 5 hides, and for his provision or pay 4 shillings for 2 months was given him from each hide. This money was not sent to the King but given to the knights. If anyone summoned on military service defaulted, he forfeited all his land to the King. If any had a substitute and the substitute defaulted the lord of the substitute was acquitted by payment of 50 shillings. When a thegn or a knight of the King's demesne was dying he sent all his weapons to the King as relief and one horse with saddle and one without. If he possessed hounds or falcons they were offered to the King for his acceptance if he wished to have them. If any slew one who was under the protection of the King's peace the slayer's person and his possessions were forfeit to the King. If anyone broke into a city at night he paid 100 shillings to the King, not to the Sheriff. If any were summoned to drive deer for the King's hunting and did not go he paid 50 shillings to the King."

Numismatically the important facts are that Wallingford was a borough; that of the 276 closes belonging to King Edward, one, in A.D. 1086, was held by a moneyer quit of service *so long as he did the coining*, and that the worth of the borough had risen from £30 in the time of King Edward to £40 afterwards, and in 1086 to £60, although it actually yielded from the ferm £80.

Coins of the Wallingford mint now in existence show that it probably acquired the right of coinage, in its capacity of a borough, under Æthelstan, as the coins of that King are the earliest upon which the name of this mint occurs. It is, however, noteworthy that Beornwald, or Byrnwald, probably identical with one of the Wallingford moneyers under Æthelstan, coined at Oxford for Ælfred the Great, and that the same name occurs upon coins of Eadweard the Elder.

This mint-name is present on coins of Eadmund and Eadwig, and the names of certain moneyers of Eadred render it probable that during his reign also the coinage was continued here.

Coins of Eadgar and of all his Saxon and Danish successors, save Eadweard the Martyr, are known of this mint.

Specimens of all the types of William I. and of the first three

types of William II., emanating from the Wallingford mint, have been noted.

The coinage, therefore, appears to have been an uninterrupted one, both when the borough was held by the King and, subsequently, when it was farmed by him to the burgesses.

As an early type of Henry I. (Hawkins, 251) was issued at Wallingford, it is probable that specimens of the remaining types, viz. 4 and 5, of William II., are in existence, and will one day be forthcoming.

Types I, II, III, and IV disclose the names of three moneyers, viz., Brand, Brihtmær and Swartling; Types V and VI, those of Brand and Swartling, whilst the latter name continues on Types VII and VIII.

Type VII discloses the names of three moneyers, and Type VIII those of two only.

In the reign of William II. only one moneyer has been noted for each of the three types known. In the absence of more exact information, it would appear, therefore, that after the death of William I., Wallingford began to decline in importance. The absence of many of the early types of Henry I. supports this inference.

The name of the moneyer Swartbrand, which occurs on a coin of Type VI, is otherwise unknown to the Norman series, and its attribution to Wallingford is only conjectural. The name occurs on coins of Cnut and Harold I. struck at Lincoln, as also does the name Swartling.

It is possible that the name Swartbrand may be compounded of the themes constituting the names of the Wallingford moneyers Swartling and Brand. The name Brand last occurs on Type V, unless in the compound name Swartbrand in Type VI, whilst the name Swartling continues on each type to the end of the reign of William I.

N.B.—* placed before a reading indicates that the coin bearing it is in the British Museum.

† placed before a reading indicates that the coin bearing it is in the collection of the present writer.

WILLIAM I.

Type I :—

- † * **BRAND ON PALLIN**, also J. S. Buchan. Plate VI, Fig. 1.
- † * **BRITMAR ON PAI**, see vol. ii, p. 130, Fig. A.
- * **SPARTLINE ON PAI**, L. A. Lawrence.
- * **SPARTLINIE ON PA**, W. S. Lincoln and Son.
- " " " **PEI**, Sir John Evans, and J. B. S. MacIlwaine.
- † * * **SPETLIND ON PALL**. Plate VI, Fig. 2.
- " " " **PALI**, L. A. Lawrence.

Type II :—

- † * **BRAND ON PALINGI**. Plate VI, Fig. 3.
- † Same reading, variety, obverse legend begins *above* the King's crown. Illustrated, vol. ii, Plate I, Fig. 19.
- Another specimen, W. S. Ogden, from the Whitchurch Common Find.
- † * **BRIHTMÆR ON PALL**. Plate VI, Fig. 4.
- " " " **PALI**, late J. G. Murdoch and F. A. Walters.
- * **BRIHMÆR ON PELI**, Montagu, 5th part, Lot 66.
- * **SPEARTINE ON PA**, Christmas, Lot 216.
- † * * **SPEARTLINE O PAL**. Plate VI, Fig. 5.
- " " " **PALI**, Sir John Evans.
- † * **SPEARTL** [], a cut halfpenny.
- † * **SPEAR** [.] **L**, a cut halfpenny.
- Illustrated, vol. ii, Plate I, Fig. 21.
- * **SIEARTLINE ON PAL**, H. B. Earle Fox.

Type III :—

- * **BRAND ON PALLINGA**.
- " " " **PALING**.
- † * " " " **PALLINGI**. Plate VI, Fig. 6.
- † " " " **PALINGI**, variety with long pendants from King's crown as in Type II; another specimen, Spink and Son, from L. A. Lawrence collection; see vol. ii, Plate II, Fig. 25.
- † * **BRIHTMÆR ON PAL**, another, Sir John Evans.
- † * **B**[] **ON PAL**, a cut halfpenny.

† [.]IER ON PAL, a cut halfpenny.

† [. . . .]HTMIER OI[. . .], a cut halfpenny.

* BRIHTPINE ON PAL, Dowell, Edinburgh, 7.11.1870, Lot 89.

* SPEARTLINE ON PA, F. G. Hilton Price.

† * SPEARTLINE ON PAI.

Type IV :—

† * BRAND ON PALINGA, variety, *no* initial *. Plate VI, Fig. 7

Also illustrated, vol. ii, Plate II, Fig. 33.

* BRIHTMIER ON PALI, Montagu, Lot 209.

* * SPEATLINE ON PAI, B.M. sub "Winchester."

Type V :—

* * BRAND ON PALIG.

* SPEORTNE ON PALI, H. M. Reynolds.

" " O " Montagu, 5th part, Lot 76.

* " " ON PAL. Plate VI, Fig. 8.

† * SPIRTIE ON PA. Plate VI, Fig. 9.

* SPRTIE ON PALIEE, Lane, May, 1856, Lot 331.

Type VI :—

* SPARTBRAND ONP, W. C. Wells. Plate VI, Fig. 10.

* * SPERTINE ON PALI. Plate VI, Fig. 11.

* * SPIRTINE ON PAL.

† " " " PAII. Plate VI, Fig. 12.

Type VII :—

* SPIRTINE ON PALL.

* " " " PAL, B.M. sub "Wilton." Plate VI, Fig. 13.

* * PIDEMAN ON PAL. Plate VI, Fig. 14.

* PVLFPINE ON PAL, Christmas, Lot 207.

Type VIII :—

* * IEGLPINE ON PAL }
 * " " ONPAL } Beaworth, 122.

† * " " ON PALI, Beaworth, 93. Plate VI, Fig. 15.

† * * SPIRTIE ON PALM, Beaworth, 16 ; Tamworth, 1. Plate VI, Fig. 16.

* " " PALNE, Beaworth, 2.

* * SPIRTINE ON PALI, Beaworth, 4. Plate VI, Fig. 17.

WILLIAM II.

Type I :—

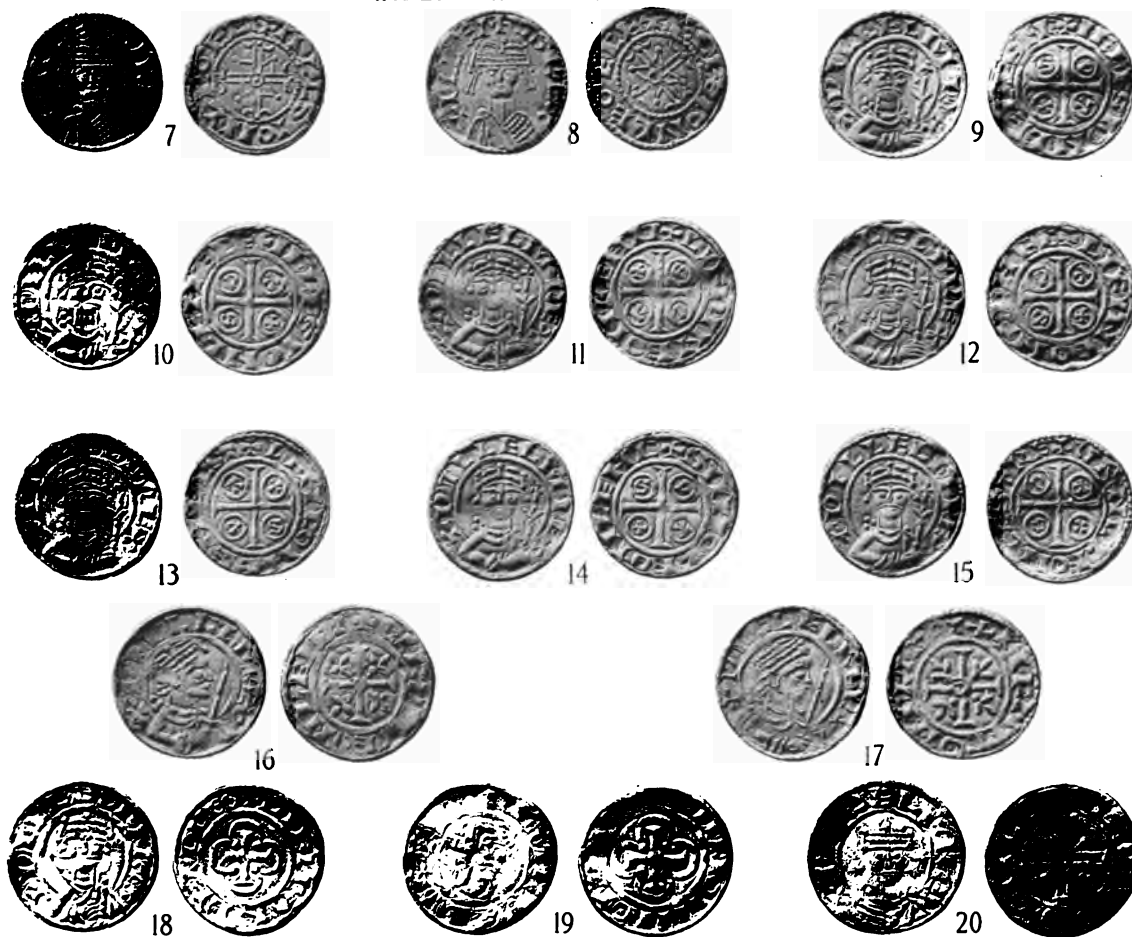
* * IELFPINE ON PALE, Tamworth Find. Plate VI, Fig. 18.



THE CAMBRIDGE MINT.

WILLIAM I. FIGURES 1 to 4.

WILLIAM II. FIGURES 5 and 6.



THE CHESTER MINT.

WILLIAM I. FIGURES 7 to 15.

WILLIAM II. FIGURES 16 to 20.

Type 2 :—

* ✱ **COLBERN ON PALI**, Tamworth Find, 3; B. Roth, from Montagu, Lot 256. Plate VI, Fig. 19.

✱ **COLERN ON PAL**, Tamworth Find; Sir John Evans.

Type 3 :—

✱ **EDPORD ON PALI**, Allen, Lot 344, pierced. Fitzwilliam Museum, Cambridge. Plate VI, Fig. 20.

Types 4 and 5 :—

No examples hitherto noted.

CAMBRIDGESHIRE :—*D.B. Grentebrygescire.*

CAMBRIDGE :—*D.B. Grentebryge.*

This ancient county borough gives its name to the shire of which it is the capital. It is situate on the river Granta, or Cam, whence it derives its name, fifty miles north from London by way of Royston, but by railway $55\frac{3}{4}$ miles. It now has a population of about 39,000, the number of inhabitants in the year 1837 having been just over 14,000.

The Anglo-Saxon appellation Grantebrycge, meaning the bridge over the Granta, was retained during the Norman period, and in the Pipe Roll of 31 Henry I. we find the Latinised forms Grentebrygescira and Grentebrygia applied to the county and borough respectively.

The town is situate within the territory of the Ancient British tribe known as the Iceni, or Eцени, and is identified with the Roman station designated Camboritum in the Itinerary of Antoninus.

In Saxon times it was situate in the kingdom of East Anglia and continued after the treaty of Chippenham, effected in A.D. 878, within Guthrum's Danish domain.

The town owes its fame to its ancient University, which is thought by some to have had its origin in the seventh century, as Bæda in his Ecclesiastical History states that Sigebert, King of the East Angles, instituted a school within his dominions in imitation of what he had seen in France. There is not, however, any real identification of this school with Cambridge, whose first Charter dates only from A.D. 1230; whilst Peter House, its first endowed college, was

founded by Hugh de Balsham, afterwards Bishop of Ely, in the year 1257.

The first mention of Cambridge in the *Anglo-Saxon Chronicle* occurs under the annal 875, wherein it is recorded that the three kings Guthorm, Oskytel and Amund went from Repton to Cambridge and there encamped for one year.

In the year 921 Eadweard the Elder was in East Anglia at the head of his West Saxon army and regained much territory from the Danes.

The *Chronicle* mentions that the "army which belonged to Cambridge chose him specially for their lord and protector, and confirmed it by oaths, as he it then dictated."

Turning to our numismatic evidence, the earliest known coin bearing the name of Cambridge is a specimen of the last type of Eadgar's coinage, described by Hildebrand in his account of the Swedish Royal Collection of coins at Stockholm.

The name of the moneyer disclosed by this coin is Albart, a name which, in the forms Adalbert and Albert, occurs on the coins of Eadweard the Elder, Eadmund and Eadred.

It is not unlikely, therefore, that the Cambridge mint dates back to the time of Eadweard's campaign in East Anglia above referred to.

Examples of coins struck at Cambridge under Æthelræd II. and all his Danish and Saxon successors are known to us.

The Domesday Survey has the greater part of a column devoted to its record of Cambridge.

This account is placed at the beginning of the survey of Cambridgeshire, before even the list of tenants-in-chief and the account of the King's own lands.

From it we learn that the borough of Cambridge was taxed as for one hundred in the time of Edward the Confessor, and that then, as also at the date of the survey, there were ten wards in the borough.

In reference to the first ward it is stated that it was counted for two in the time of King Edward "but now 27 houses have been destroyed for the castle."

Picot the Sheriff and the lawmen are referred to, but there is no reference to the mint or any moneyer.

It is therefore inferred that the King derived no profit directly from the mint and, consequently, that the same was in the hands of the burgesses.

In 1068 William the Conqueror in his campaign against the Northern earls, Eadwine and Morkere, went as far north as York, and on his return southward received the submission of Lincoln, Cambridge and Huntingdon.

It is probable that it was on this occasion that Cambridge Castle, situate to the north-west of the river in Chesterton parish, was erected and to this period belongs the coin of Type I hereafter described.

The only other examples of the coinage of William I. of this mint which have come to our notice are of Types IV, VII and VIII, whilst Type I of William II. is the only type of that King of which evidence has survived to us.

It is, however, probable that all the missing types may yet come to light, as the possession of the mint by the burgesses imports the likelihood of a continuous coinage.

N.B.—* placed before a reading indicates that the coin bearing it is in the British Museum.

† placed before a reading indicates that the coin bearing it is in the collection of the present writer.

WILLIAM I.

Type I :—

* * **GODRIC ON GRANT**, variety, large pellet between king's neck and sceptre. Plate VII, Fig. 1.

Also illustrated, vol. ii, Plate I, Fig. 8.

Types II and III :—

No examples hitherto noted.

Type IV :—

† * **IELMIER ON GRANT**. Plate VII, Fig. 2.

† * **ODBEARN ON GRANT**. Plate VII, Fig. 3.

* **OD • • ARN ON • • ANT**, Miss Helen Farquhar.

Types V and VI :—

No examples hitherto noted.

Type VII :—

* **VLFLITL ON GRANT**, Durrner, January, 1853, Lot 43.

Type VIII :—

* * **VLFLIL ON GR/VVT**, var.: Hawkins, 242. Beaworth, 31.
Plate VII, Fig. 4.

WILLIAM II.

Type 1 :—

† * * **PIBERN ON GRANT**, Tamworth Find. Plate VII, Fig. 5.*
" " " 6.†

Types 2, 3, 4 and 5 :—

No examples hitherto noted.

CHESHIRE :—*D.B. Cestrescire.*

CHESTER :—*D.B. Cestre.*

The city of Chester is the metropolis of the county palatine of Cheshire. In the year 1837 Chester contained about 20,000 inhabitants, and now has a population of over 36,000. It is situate on the river Dee, and is still encircled by its ancient walls, some portions whereof date back to the time of the Roman occupation, this place having been the station of the XXth Legion after the defeat of Caractacus, or Caradoc, King of the Britons. From the fact of its occupation by this Roman Legion the city derived its late British name of *Caer Leon* or *Cair Legion*, which in Anglo-Saxon times was transmuted to *Legeceaster*. The Anglo-Saxon appellation is found on the coins of that period and is continued on those issued there during the reigns of William I. and II., the form *Cestre*, however, is present on one coin of the Conqueror's last type.

Chester was a place of great strategic importance owing to its situation near the sea at practically the point of division between the territories of the Britons of *Cambria* and those who long continued to occupy the districts of *Cumbria* and *Strathclyde*.

It constituted the border fortress of the Mercians, and was often attacked by the Britons, its ancient possessors, and by bands of Danes coming over the sea from Ireland and the Isle of Man.

The *Anglo-Saxon Chronicle* records an early attack on Chester when in A.D. 606 Æthelfrith, King of the Northumbrians, led his army thither and there slew numberless Welsh, including two hundred priests who came thither that they might pray for the army of the Welsh.

Under the year 894 the *Chronicle* again refers to Chester, on this occasion as "a desolated city in Wirrall, which is called Legaceaster"; but Florence of Worcester uses the term "deserted" instead of "desolated." There was evidently a substantial fortress there at this time, as Ælfred's army had been unable to overtake the Danes, who had fled thither, before they were "within the work." They, however, "beset the work from without for two days," but did not capture it.

In the year 907 Chester was renovated by King Eadweard, or by his warlike and energetic sister Æthelflæda.

The earliest coins bearing the name of this city are of Æthelstan, but we learn from a comparison of the names of the moneyers thereon with certain of those on coins of Eadweard the Elder, that there is every likelihood that coinage took place there from the date of the city's renovation in A.D. 907. A coin of Eadmund bears the name of this place, as do many of those of Eadgar and all his Saxon and Danish successors. In all probability Eadred and Eadwig also coined here: the names of their moneyers support the supposition. At some time in Eadmund's reign, Chester was once more under British rule, as the coin issued thence by Howel Dda so clearly shows.¹ It is noticeable that on the Chester coins of Æthelstan the abbreviated form of the Latin CIVITAS is nearly always written as if spelt with an F instead of a V, *i.e.*, CIF instead of CIV, a circumstance very characteristic of Welsh linguistic influence.

The names of many of the Chester moneyers of Æthelstan and his immediate successors coincide with those appearing on the coins of the same kings struck at Derby.

¹ See "The Saxon, Norman and Plantagenet Coinage of Wales," *British Num. Journ.*, vol. ii, pp. 31-41.

The account of Chester occupies nearly a column and a half of Domesday, and stands significantly at the head of the survey of Cheshire. From this we learn that in the time of King Edward the Confessor the City of Chester was taxed for 50 hides ; that there were in the city 431 houses paying geld, in addition to which the Bishop had 56 like houses. Then this city paid ten and a half marks of silver, two parts to the King and the third to the Earl.

In the time of King Edward there were in this city seven moneyers who gave seven pounds to the King and Earl in addition to the ferm when the money was changed.

There were then twelve judges of the city, and these were of the men of the King, the Bishop and the Earl.

For the rebuilding of the wall of the city and the bridge, the reeve (*præpositus*) ordained that one man should come from each hide of the county.

This city then rendered for rent £45 and three "timbres" of martens' skins. The third part was the Earl's and the remaining two parts were the King's.

When Earl Hugh received the city it was not worth more than £30, for it was very much wasted. There were 205 houses fewer than there were in King Edward's time. Now there are just so many as he found there. Mundret held this city of the Earl for £70 and one mark of gold, and had at a rent of £50 and one mark of gold all pleas of the Earl in the county and hundreds except Inglefeld.

In the time of Edward the Confessor, Chester pertained to the dominions of Eadwine, Earl of Mercia, and after the battle of Hastings Ealdgyth, widow of Harold II., retired to Chester. She was a daughter of Earl Ælfgar and is said by some to have been formerly the wife of Gruffydd, King of Wales.

Freeman in his *William the Conqueror* writes as follows :—

The Conqueror had now only to gather in what was still left to conquer. But, as military exploits, none are more memorable than the winter marches which put William into full possession of England. The lands beyond Tees still held out ; in January, 1070, he set forth to subdue them. The Earls Waltheof and Gospatric made their submission,

Waltheof in person, Gospatric by proxy. William restored both of them to their earldoms, and received Waltheof to his highest favour, giving him his niece Judith in marriage. But he systematically wasted the land, as he had wasted Yorkshire. He then returned to York, and thence set forth to subdue the last city and shire that held out. A fearful march led him to the one remaining fragment of free England the unconquered land of Chester. We know not how Chester fell ; but the land was not won without fighting, and a frightful harrying was the punishment. . . .

“At Chester the work was ended which had begun at Pevensey. Less than three years and a half, with intervals of peace, had made the Norman invader king over all England.”

Turning to our numismatic evidence, we find that no coin of William I. of Type I, current from the beginning of his reign until Michaelmas, 1068, exists of the Chester mint.

The coinage of the deceased King Harold II. was possibly continued there during this period of freedom from William's rule, but, be this as it may, Type II, current from Michaelmas, 1068, to Michaelmas, 1071, duly appears, and once more confirms, numismatically, the fragments of history remaining to us.

Orderic (Book IV, chapter 7) tells us that the two great earls of the Mercians having been disposed of—Eadwine by death, and Morkere by strict confinement—King William distributed their vast domains in the richest districts of England among his adherents.

He granted the city and county of Chester to Gherbod of Flanders, who had been greatly harassed by the hostilities of the English and Welsh.

Gherbod obtained leave from the King to visit his hereditary domains in Flanders, but while there he fell into the hands of his enemies and had to endure the sufferings of a long captivity.

In consequence, the King gave the earldom of Chester to Hugh d'Avranches, son of Richard surnamed Goz. This was in 1070 or 1071, from which time to his death at Chester in July, 1101, Earl Hugh continued in possession and enjoyment of the earldom of Chester.

During Odo's rebellion, shortly after the accession of William II., Earl Hugh maintained his fealty to his Sovereign and gave him useful aid (Orderic, Book VIII, chap. 2).

No coins of the Chester mint of Types IV, V, VI and VII, representing the period from Michaelmas, 1074, to Michaelmas, 1086, have yet been noted; but it would seem that there is no adequate reason for their absence save the lack of their discovery.

All the types of William II., except Type 5, of this mint are represented in our cabinets to-day, and of this last type (Hawkins 248) there is no recorded discovery of any appreciable number of specimens, so that this type is often lacking where its immediate predecessors are abundantly evidenced.

On the other hand, we learn from Orderic that Earl Hugh joined the army of William II. in Normandy in 1097, and that he was there at the time of that King's death in 1100.

This period of absence covers the entire period of currency of Type 5.

There is, however, no similarly recorded absence abroad of the Earl to account for there being no Chester coins of Types IV, V, VI and VII of William I.; indeed, as regards Type VI, it is known that in 1081 and 1082 he was in England, as he witnessed charters to Bury St. Edmund's and Durham in those years.

N.B.—* placed before a reading indicates that the coin bearing it is in the British Museum.

† placed before a reading indicates that the coin bearing it is in the collection of the present writer.

WILLIAM I.

Type I :—

Non-existent.

Type II :—

- * **ÆLFPEARD ON LEHI**, York Find, 1845, 3.
- * **ALLSI ON LEƆELI**. Plate VII, Fig. 7.
- * **ELFZI ON LEƆELE**. Plate VII, Fig. 8.
- " " " **LEƆELES**.
- " " " **LEƆELI**, York Find, 1845, 2.
- * **ELFPI ON LEƆELL**.
- * **FRIDƆICT ON LEI**, York Find, 1845; Sir John Evans.
- * **GODRIC ON LEƆEL**.

Type III :—

* **LIFINNE ON LESTE.**

Types IV, V, VI and VII :—

No examples hitherto noted.

Type VIII :—

- * **IELFSI ON LECESTR**, Beaworth, 4. Plate VII, Fig. 9.
- * " " **LEHECE**, Beaworth, 5 ; Tamworth, 1. Plate VII, Fig. 10.
- * **LIFPINE ON LECE**, Beaworth, 2.
- * " " **LECEI**, Beaworth, 4.
- * " " **LEHC**, Beaworth, 1.
- † * " " **LEHCI**, Beaworth, 4. Plate VII, Fig. 11.
- † * **LIFINE ON LEHEC**, Beaworth, 2. Plate VII, Fig. 12.
- † * **LFNE ON LEHECST**, Beaworth, 9. Plate VII, Fig. 13.
- * **SVNOLF ON LECE**, Beaworth, 1.
- * " " **LECS**, Beaworth, 1.
- † * " " **LEHC**, Beaworth, 3. Plate VII, Fig. 14.
- * **SVNOVLF ON LECI**, Beaworth, 5.
- * **VNNVLF ON CESTRE**, Beaworth, 1. Plate VII, Fig. 15.

WILLIAM II.

Type I :—

- * **LIFPINE ON LEICEI**, Tamworth Find, 2 ; Sir John Evans.
- * " " **LEIET**. Plate VII, Fig. 16.
- † * **LIFPIN ON LEICEI**. Plate VII, Fig. 17.
- * **LIFINE ON LEICEI**, Tamworth Find.
- * **SVNOLF ON LEHST**, Tamworth Find.

Mule of Types 1-2 :—

- * **GODRIC ON LEHST.**
- * **LIFPINE ON LEICE**, Tamworth Find ; Sir John Evans.

Type 2 :—

- * **IELFPINE ON LEIGL**, Tamworth Find.
- * **GODRIC ON LEH.**
- * **LIFIC ON LEIEI**, Tamworth Find.
- * " " **LEIECES**, Tamworth Find, 2. Plate VII, Fig. 18.
- * **LIFINE ON LEICEI**, Tamworth Find.
- " " **LEIECES**, Tamworth Find.

- * **LIFPINE ON LEICE**, Tamworth Find ; Sir John Evans.
- * **SVNOVLƿ ON LEO**, Tamworth Find.
- " " " **LEIC**, Tamworth Find.
- " " " **LEIE**, Cuff Sale, Lot 722.
- " " " **LEIEL**, Sir John Evans.
- † " " **LEIEL**, Tamworth Find, 2. Plate VII, Fig. 19.

Type 3 :—

- † * **IELFPINE ON . .**
- * **LIFNOÐ ON LEOEL**.

Type 4 :—

- † * **LIENOD ON LEC**. Plate VII, Fig. 20.
- * **LIFNOÐ ON LEOEL**.

Type 5 :—

No example hitherto noted.

RHUDDLAN :—*D.B. Roelend ; Roelent.*

For a full account of this mint the reader is referred to the writer's monograph on the Saxon, Norman and Plantagenet coinage of Wales. *British Numismatic Journal*, vol. ii, pp. 41-46.

At the time of the Domesday Survey, Rhuddlan was held by Hugh, Earl of Chester, and a half share of the castle, borough, and mint was held by Robert de Rhuddlan of his cousin the Earl.

As the Norman coins of Rhuddlan are limited to specimens, from the same dies, of Type VIII of William I. it may be of interest to supplement the account of the Rhuddlan Mint above referred to by giving some further particulars, taken from Orderic's history, of Robert de Rhuddlan, under whom these were struck. His father, Umfrid, was son of Amfrid of Danish race : his mother Adeliza, was sister of Hugh de Grantmesnil, of the noble family of Giroie. Robert came over to England with his father while he was quite young, and was in the service of King Edward, both in his household and army, until he was knighted by that King. He then returned to his own country, but after the battle of Hastings the young knight, with his cousin Hugh, son of Richard d'Avranches, again came over to England, and,



THE RUDDLAN MINT.
WILLIAM I. FIGURES 1 & 2.



3



4



5



6



7



8



9



10

THE LAUNCESTON MINT.
WILLIAM I. FIGURES 3 to 9.
WILLIAM II. FIGURE 10.



11



12



13



14



15



16



17



18



19



20

THE DERBY MINT.
WILLIAM I. FIGURES 11 to 16.
WILLIAM II. FIGURES 17 to 20.

after many exploits, was attached to the service of his said cousin, who in 1070 was created Earl of Chester. The Earl appointed Robert commander of his troops and governor of his whole province.

Robert erected new castles at Rhuddlan and Deganwy, and for fifteen years he severely chastised the Welsh, and seized their territory; notwithstanding that, proud of their ancient independence, they had refused all tokens of submission to the Normans.

In 1088, during Bishop Odo's rebellion against William Rufus, Robert de Rhuddlan, in common with his uncle Hugh de Grantmesnil, who had the government of Leicestershire, Roger, Earl of Shrewsbury, and others, favoured the conspirators, and took sides against the King. Hugh, Earl of Chester, Robert's feudal lord and cousin, maintained his loyalty to his Sovereign.

This circumstance would, doubtless, in itself account for the cessation of a coinage by Robert at Rhuddlan, and the moneyer there was thereupon withdrawn by Earl Hugh to his own mint at Chester, the coins whereof confirm this view.

But on the 3rd July, 1088, Robert met his death in a foolish attempt to repel, without his armour, and with only one follower, Gruffydd, King of Wales, who with his followers in three ships had come to land beneath the Great Orme's Head.

His body was interred at the Abbey of St. Werburgh the Virgin at Chester, but was some years afterwards transferred by his brother Arnold, with the licence of Robert de Limesi, Bishop of Lichfield, to the abbey of St. Evroult in Normandy.

WILLIAM I.

Type VIII:—

* ✠ **ELFPINE ON RVDILI**, Beaworth, 1. Plate VIII, Figs. 1 and 2.

This is the only known type of William I. struck at Rhuddlan. Only one specimen is recorded by Hawkins to have been found at Beaworth. There is, however, a duplicate in the British Museum, presumably also from Beaworth.

One specimen is assigned by the custodians of the National

Collection to Huntingdon and the other specimen from the same dies to Romney, a circumstance which is mentioned here to assist those desirous of inspecting the coins to discover them.

No coins of William II. struck at this mint are known.

CORNWALL :—*D.B. Cornvalge, Cornvalia.*

LAUNCESTON :—*D.B. Lanscavetone, Lancauetone.*

For a full account of this mint the reader is referred to the writer's monograph on "Cornish Numismatics," *British Numismatic Journal*, vol. iii, pp. 107–116.

Æthelræd II. and Harold I. coined here, the mint-name on the only known single examples of the coinage of each king being represented by the forms LANSTF and LANSTE respectively, which probably indicate Lanstefanton, meaning, what it in fact was, the town of the church of St. Stephen.

Domesday Book is the earliest original record concerning the town which we have been able to consult.

On folio 120b the following entry occurs :—

"The Canons of St. Stephen hold Lanscavetone. There are four hides of land which were never subject to the payment of geld. There is land for twenty ploughs. There are three ploughs and three leagues of pasture and sixty acres of wood. It was formerly worth £8. Now it is worth £4.

"From this manor the Count of Mortain took away a market, which lay there in the time of King Edward (the Confessor), and was worth twenty shillings."

On folio 120 the Canons of St. Stephen of Lancauetone are recorded as holding the Manor of Paindran of the Count of Mortain.

In each case *Sancti Stephani* is rendered *ᚱ. Stefani* : a point to which attention is drawn to illustrate and confirm the spelling of the mint-name on the coins attributed by the writer to Launceston.

The third, and last, entry in Domesday Book relevant to the subject occurs on folio 121 b, and the following is a translation of it :—

"The Count (of Mortain) himself holds DUNHEVET. In the time of King Edward (the Confessor) it was assessed to the geld for one virgate of land. Yet there is one hide. Land there is for ten ploughs.

"In demesne is one plough and there are three serfs, one villein and thirteen bordars with four ploughs. There are two mills which render forty shillings and there are forty acres of pasture. Formerly it was worth twenty pounds. Now it is worth four pounds.

"There is situate the castle of the Count."

Around his castle of Dunhevet the Count of Mortain built the walled town or burgh of Dunhevet, and thither he transferred the market which in King Edward's time appertained to the original town of the Canons of St. Stephen, viz., Lanstefanton,

Dunheved was, in effect, an "*imperium in imperio*," or rather a "*burgus in burgo*." That this was the position is shown by a charter of Reginald de Dunstanville, Earl of Cornwall (1140-1176), a son of Henry I., quoted by Messrs. R. and O. B. Peter in *The Histories of Launceston and Dunheved* (1885), pp. 4-5. The following extract is sufficient for the purpose :—

"Moreover I wish to bring to the notice of all men that R. the Prior of Lanstone, in full Court before me at the Castle of Dunhevede, the Provost and Burgesses of that town being present, sufficiently and lawfully explained that at the time when the Count of Mortain transferred the Sunday market from the town of St. Stephen at Lanstone, to the *new town of the Castle of Dunhevet*, the Canons of Lanstone, with the assent and will of the aforesaid Count of Mortain, retained for themselves and their borough of Lanstone and the Burgesses remaining in it, *all liberties pertaining to a free borough*, with the same integrity which they had of old, except only the Sunday market. And the same Canons have of the Provost of the Castle twenty shillings annually at the Feast of St. Martin. And that they had and held the same liberties fully and quietly and without contradiction during the whole time of Henry, the King of England, my father. Wherefore I have granted, and by this my charter confirmed, to the aforesaid Canons and the town of Lanstone, and to the men having hearth and habitation therein, *all the liberties pertaining to a free borough*, with the aforesaid twenty shillings annually."

The liberties pertaining to a free borough included the right to one moneyer under the laws of Æthelstan.

The coin of Æthelræd II., above referred to, shows that Lanstanton, or Launceston, enjoyed this privilege of coining as early as the reign of that King, and it is, of course, possible that coins struck there in earlier reigns may yet come to light.

Down to the date of the above cited charter of Reginald, Earl of Cornwall, nothing seems to have occurred to take away from the town of the Canons of St. Stephen their right to a moneyer.

There is at present a gap that may or may not hereafter be bridged over, namely, from the reign of Harold I. to that of William I.¹

There are preserved to us several specimens from the Launceston mint of Type V of the Conqueror's coins, the date of the issue whereof is assigned by the present writer to Michaelmas, 1077, to Michaelmas, 1080.

The reverse of the Launceston specimens bears the unusual legend **✠ SASOTI STEFANII**, which has generally been read **✠ SASOTI STEFANII**.

In the British Museum there are two specimens of this coin, one being placed in the cabinets there under "uncertain" mints, and the other being attributed to Stepney.

The writer has another example, a fourth (from the Allen collection) is the property of Mr. W. Talbot Ready, and others are known.

The unusual characteristic of the legend is that it appears to be in Latin, and in the genitive case, whereas all other coins of this type, nay more, of all the types of William I. and William II., bear the name of the moneyer, followed by the word *ON*, equalling *at*, and lastly the name, more or less abbreviated, of the mint town.

It is offered as a solution of the puzzle that the legend is intended for Sancti Stefani, the word *moneta* being understood, the Latin equivalent to "Money of St. Stephen's."

This interpretation may seem fanciful, but when it is considered that the form of the legend is only adopted in this particular instance, and that the dies were probably engraved in London on the written

¹ Since the above was written, the writer has acquired a coin of Type IV (Hildebrand Type B) of Edward the Confessor of this mint, the reading on the reverse being **✠ EODRIE ON L·A : M.**

instructions of the then Prior of St. Stephen's, the Latinity and the partial blundering of the word Sancti are to a great extent explained.

As regards the British Museum attribution of these and other coins hereafter mentioned to Stepney, it is sufficient to say that a colourable likeness to the modern name can only be obtained by reading a very distinct series of *Fs* as *Ps*; but were the *Fs* in fact *Ps* the case would not be bettered, as Stepney is called Stibenhede in Domesday Book and even as late as in the charter of Richard I. it appears as Stebeheie.

The name Stepney has no connection with Stephen or Stefan, however spelt, and there is nothing in the history of the place to warrant the supposition of it ever having possessed a mint. Stepney, moreover, is almost adjacent to the Tower of London, which, in Norman times, and until a comparatively recent date, was the chief mint of the Kingdom.

The next coins of the Launceston series are those of Type VIII of William I. Upon these the reverse legends are in the usual form.

The following varieties are known : **✠ GODRIE ON STEFNI** and **✠ GODRIE ON STFANI**.

Of the first variety of reading four specimens are recorded as having been included in the Beaworth hoard, discovered in 1833, and in the same hoard were two specimens bearing the second reading.

The British Museum specimens of each form of reading are placed under Stepney.

The first type of William II. is represented by a coin reading **✠ IEGLIER ON STEFN**, but the writer has no knowledge of the ownership of the piece and relies on a reading furnished to him, with many others, by Mr. W. J. Webster.

Of the second type of William II., the late Mr. J. G. Murdoch possessed a specimen also reading **✠ IEGLIER ON STEFN**. This was found at Shillington in Bedfordshire, and formed Lot 337 at the sale of the late Mr. William Allen's collection, 16th March, 1898, and is illustrated in the autotype Plate II of the catalogue. At Mr. Murdoch's sale in April, 1903, it formed Lot 203, and is now in the collection of Mr. Reginald Huth.

Hitherto in Norman times it seems to have been the intention of those responsible for the preparation of the coins to give prominence in the necessarily abbreviated mint letters to the principal name *Stephen*, but by the early part of the reign of Henry II. the more general course of giving enough of the commencement of the place-name to ensure its identification was followed, and, as a consequence, we find the form *LANST*, which, minus a letter, is the reading of the coin of Æthelræd II. In a charter of Henry, Bishop of Exeter, dated 3rd September, 1196, the name is spelt Lanstaveton.

N.B.—* placed before a reading indicates that the coin bearing it is in the British Museum.

† placed before a reading indicates that the coin bearing it is in the collection of the present writer.

WILLIAM I.

Types I, II, III and IV :—

No examples hitherto noted.

Type V :—

† * ✠ **SASOTI STEFANII**, B.M. sub "Stepney," another sub "uncertain"; W. T. Ready, from Allen Sale. Plate VIII, Figs. 3, 4 and 5.

† Also illustrated, vol. ii, Plate II, Fig. 36.

Types VI and VII :—

No examples hitherto noted.

Type VIII :—

var. 242. * ✠ **GODRIC ON STEFNI**, Beaworth, 4. Plate VIII, Figs. 6 and 7.

† * ✠ **GODRIC ON STFANI**, Beaworth, 2. Plate VIII, Figs. 8 and 9.

WILLIAM II.

Type 1 :—

✠ **IEGLIER ON STEFN.**

Type 2 :—

✠ **IEGLIER ON STEFN**, R. Huth, from J. G. Murdoch, Lot 203, and Allen, Lot 337, collections. Plate VIII, Fig. 10.

Types 3, 4 and 5 :—

No examples hitherto noted.

DERBYSHIRE :—*D.B. Derbyscire.*

DERBY :—*D.B. Derby.*

This ancient borough gives its name to the shire of which it is the capital. It is situate on the western bank of the river Derwent and is fifteen miles west from Nottingham and 126 miles north-west from London. In 1837 its population was between 17,000 and 18,000, but its inhabitants now number about 106,000.

In the days of its Danish possessors it was called *Deoraby*, a name adopted by the Anglo-Saxons in later times when it became one of the principal towns of Mercia.

The *Anglo-Saxon Chronicle* tells us that in the year 874 the Danes went from Lindsey to Repton, which is only eight miles south-west from Derby, and there took winter quarters.

On this occasion they expelled Burgred, King of Mercia, and subdued all his lands, and set up Ceolwulf II. as king.

It is probable that Derby remained in possession of the Danes until its capture by Æthelflæda, Lady of the Mercians, in the year 917. This was effected before August 1st after a strong resistance, as four of her thanes were slain within the gates of the burgh. After her death the town seems to have once more fallen into the hands of the Danes, from whom it was regained by Eadweard the Elder in his campaign of A.D. 924, when he visited Nottingham and went thence into Peakland and commanded a burgh to be built in the immediate neighbourhood of Bakewell.

Our numismatic evidence shows us that Æthelstan had a mint at Derby, and the names of the moneyers appearing on the coins issued here by his authority lead to the conjecture not only that Eadweard the Elder had established a mint here after the capture of the town by his sister Æthelflæda, but also to the surmise that Derby continued to possess a mint under Æthelstan's successors, Eadmund, Eadred and Eadwig, although the name of this place does not occur on their coins.

The name of Derby, however, reappears on the coins of Eadga and is continued on those of all his Saxon and Danish successors.

Derbyshire and its neighbourhood seems to have been a frequent battle-ground throughout the reigns of Ælfred, Eadweard the Elder, Æthelstan and Eadmund, a circumstance due to its situation just south of the Northumbrian border.

It is indeed probable that Mr. Andrew will successfully demonstrate that the celebrated battle of Brunanburh, won by Æthelstan and his brother Eadmund in A.D. 937, took place in Peakland.

Derby appears not to have been held continuously by the earlier Saxon Kings, as under the year 941 the *Chronicle* relates in the poetic style of the period the warlike deeds of Eadmund in the following lines :—

Here Eadmund king,
of Angles lord,
of his tribes protector,
Mercia subdued,
daring deed-doer,
as the Dore it bounds,
and Whitwell's gate,
and Humber's river,
broad ocean-stream.
Five towns,
Leicester,
and Lincoln,
and Nottingham,
so Stamford eke,
and Derby,
were erstwhile Danish,
under the Northmen,
by need constrain'd,
in heathens'
captive bonds,
for a long space,
until again releas'd them,
through his worthiness,
the warrior's refuge,
Eadweard's offspring,
Eadmund king.

At the time of the Norman Conquest, Derby was in the territory of Eadwine, Earl of Mercia, and the issues of Types I, II and III from this mint show that early submission was made to William I. The *Chronicle* relates that on Whitsunday, 11th May, 1067, Matilda was hallowed queen at Westminster. It was then announced to the King that the people in the north had gathered themselves together, and would stand against him if he came.

He then went to Nottingham, and there wrought a castle ; and so went to York, and there wrought two castles, and in Lincoln, and everywhere in that part.

It is probable, therefore, that the castle at Derby was erected at this time.

Domesday shows us that Derbyshire and Nottinghamshire were closely linked together.

Although there are separate surveys of the two counties, the account of the borough of Derby is placed alongside of that relating to Nottingham and at the very head of the survey of Nottinghamshire.

The following is a translation¹ of the record :—

In the Borough of Derby, in King Edward's time, there were 243 resident burgesses, and there belong to this borough 12 carucates of land (assessed) to the geld, which 8 teams can plough. This land was divided among 41 burgesses who also had 12 ploughs. To the King belonged two parts and to the earl the third of rent and toll and forfeiture and of every customary due.

In the same borough there was 1 church in the King's demesne with 7 clerks who held 2 carucates of land freely in Cestre [Little Chester].

There was also another church similarly the King's, belonging to which 6 clerks held 9 bovates of land likewise freely in Cornun [? Quarndon] and Detton [? Little Eaton].

In the vill itself there were 14 mills.

Now there are 100 burgesses there and 40 other lesser ones, 103 tenements are waste which used to pay rent. There are now 10 mills and 16 acres of meadow. Underwood 3 furlongs in length and 2 in breadth. In King Edward's time it rendered 24 pounds in all, now with the mills and the vill of Ludecerce [Litchurch] it renders 30 pounds.

¹ *Victoria County History of Derbyshire.*

M. In Ludecerce [Litchurch] the King has 2 carucates of land (assessed) to the geld. (There is) land for 3 ploughs. There 1 sochman and 9 villeins have 2 ploughs and 12 acres of meadow.

In Derby the abbey of Bertone [Burton] has 1 mill and 1 messuage with sac and soc, and 2 dwellings of which the King has the soc, and 13 acres of meadow.

Geoffrey Alselin has 1 church which belonged to Tochi.

Ralf son of Hubert (has) 1 church which belonged to Levric with 1 carucate of land.

Norman of Lincolia [Lincoln] (has) 1 church which belonged to Brun.

Edric has there 1 church which belonged to Coln his father.

Earl Hugh (of Chester) has 2 messuages and 1 fishery with sac and soc.

Henry de Ferrariis 3 messuages with sac and soc likewise.

Osmer the priest has 1 bovat of land with sac and soc.

Godwin the priest 1 bovat of land similarly.

At the feast of St. Martin the burgesses render to the King 12 thraves of corn of which the abbot of Bertone [Burton] has 40 sheaves.

There are in addition in the same borough 8 messuages with sac and soc. These belonged to Ælgar; now they are the King's.

The King's two pennies and the earl's third which come out of Apletreu [Appletree] Wapentake in Derberie [Derbyshire] are in the sheriff's hand or rent by the witness of the two shire (-courts).

Of Stori, Walter de Aincurt's predecessor, it is said that without any one's leave he could make for himself a church on his own land and in his own soc and could assign his own tithes where he wished.

In Snotingehamscyre and in Derbiscyre if the King's peace, given under his hand or seal, be broken, a fine is paid by 18 hundreds. Each hundred (pays) 8 pounds. The King has 2 parts of this fine, the earl the third. That is, 12 hundreds pay to the King and 6 to the earl.

If any one be exiled according to law for any crime, none but the King can restore peace to him.

A thegn having more than 6 manors does not give relief of his land except 8 pounds to the King alone. If he has only 6 or less he gives 3 marks of silver to the sheriff as relief wherever he dwells in the borough or without. If a thegn having sac and soc forfeit his land, the King and earl have half his land and money between them, and his lawful wife with his legitimate heirs, if there be any, have the other half.

Here are noted those who had soc and sac and thol and thaim and the King's dues of the two pennies.

The Archbishop of York over his manors, and the Countess Godeva over Newerca [Newark, Notts] Wapentake and Ulf fenisc over his land; the Abbot of (Peter) Borough over Colingeham [Collingham, Notts]; the Abbot of Bertune [Burton, Notts]; Earl Hugh (of Chester) over Marcheton [Markeaton, Derby]; the Bishop of Cestre [Chester]; Tochi; Suen the son of Suave; Siward barn; Azor the son of Saleva; Ulfric cilt; Elsi; Illinge; Lewin the son of Alewin; the Countess Alveva; the Countess Goda; Elsi the son of Caschin over Werchesoppe [Worksop, Notts]; Henry de Ferrers over Ednodestune [Ednaston, Derby] and Dubrige [Doveridge, Derby], and Breilesfordham [Brailsford, Derby]; Walter de Aincurt over Granebi [Granby, Notts] and Mortune [Morton, Derby] and Pinnesleig [Pilsley, Derby]. None of all these could have the earl's third penny except by his grant, and that for as long as he should live, except the Archbishop and Ulf fenisc and the Countess Godeva.

Over the soc which belongs to Cliftune [Clifton] the earl ought to have the third part of all customs and services.

None of the names recorded correspond with those of the moneyers appearing on the coins, unless it be that of Godwin the priest. This name occurs on the coins of Type VIII of William I., contemporary with Domesday, and on the first two types of William II. There is, however, no evidence of identity.

As no separate payment is recorded in respect of the mint it is to be inferred that it was farmed to the burgesses, and that the right to receive its profits was covered by the rent paid by them. It follows that the coinage was continuous throughout the reigns of the Conqueror and Rufus, but at present no specimens of Types IV, VI and VII of the former king and Types 3, 4 and 5 of the latter have been noted.

Henry de Ferrers, son of Walchelinus de Ferrers, owned three houses in the borough of Derby and one hundred and fourteen manors in Derbyshire, but it was not until September, 1138, that his son, Robert de Ferrers, was created, by King Stephen, Earl of Derby as a reward for his successful command of the forces of Derbyshire at the battle of the Standard (22nd August, 1138), so that at our period, A.D. 1066-1100, it would seem clear that the de Ferrers family exercised no control over the mint at Derby.

N.B.—* placed before a reading indicates that the coin bearing it is in the British Museum.

† placed before a reading indicates that the coin bearing it is in the collection of the present writer.

WILLIAM I.

Type I :—

* **FRONA ON DIORBI.**

Type II :—

* * **COLBEIN ON DVRBI**, York Find, 1845 (2). Plate VIII, Fig. 11.

Type III :—

† * **COLBE[IN ON DI]OR**, a cut halfpenny. Plate VIII, Fig. 12.
Also illustrated, vol. ii, Plate II, Fig. 28.

Type IV :—

No example hitherto noted.

Type V :—

† * **FROAM ON DREB**. Plate VIII, Fig. 13.

Types VI and VII :—

No examples hitherto noted.

Type VIII :—

* * **GODPINE ON DIRBI**, Beaworth, 3. Plate VIII, Fig. 14.

† * * " " **DRBI**, Beaworth, 11. Plate VIII, Fig. 15.

† * * **LEOPINE ON DERBI**, Beaworth, 6. Plate VIII, Fig. 16.

WILLIAM II.

Type 1 :—

* * **GODPINE ON DERBI**, Tamworth Find. Plate VIII, Fig. 17.

† * **LIFPINE ON DRBIE**, from Murdoch Sale, Lot 201. Plate VIII, Fig. 18.

Type 2 :—

* * **GDPINE ON DRBE**, Tamworth Find. Plate VIII, Fig. 19.

* **GVDNIE ON DRBE**, Tamworth Find.

* * **LIFPINE ON DRBI**, Tamworth Find. Plate VIII, Fig. 20.

Types 3, 4 and 5 :—

No examples hitherto noted.

PORTRAITURE OF OUR TUDOR MONARCHS ON THEIR COINS AND MEDALS.

BY HELEN FARQUHAR.

IN limiting the subject of this paper to the artistic series of the medallic portraiture of some of our monarchs, I purpose to confine myself, for the present, to citing examples found upon our coinage and medals during a period of one hundred years, a long enough time, but short as we reckon art. I will begin with the year 1504—speaking of the Tudors only—though I hope to carry my readers into Stuart days in some future volume. My reason for starting with the sixteenth century is, that although in very early times the busts of our sovereigns appeared upon their coins, the excellence of the Roman portraiture was soon lost by our Saxon forefathers, and though perhaps upon the Norman coins a certain likeness may be traced to the seals or effigies of our kings, these rude presentments can hardly be classed as artistic portraits. A portrait to be artistic should be a true, if perhaps a rather flattering likeness. Now many of our writers have contributed much interesting information upon the changes in the busts of our early rulers, also of their personal appearance, but few have ever suggested that the likenesses of these monarchs upon their coins bring any vivid picture of the men before our eyes—although they were in some instances well portrayed upon their seals. George Vertue, it is true, endeavoured to trace portraits in the coins of such kings as he could not find represented more clearly upon their effigies or in early pictures, and he published his engravings in Rapin's *History of England*, but his glorified likenesses cannot be said to carry much weight. The pennies of each of our Norman kings, even of Stephen, might possibly be thought to suggest the manner of man portrayed, though not artistically, but it is by the help of other evidence we decide that the bust upon a coin is that of Richard I., or of John,

and not that of their father Henry ; it does not really convince us that Richard or John wore more or fewer curls in the arrangement of his hair, or more or fewer pearls in his crown, and it is from other sources that we surmise how handsome was Richard Cœur-de-Lion, how unpleasing was Richard III. The early Edwards differ so little in their busts that portraiture was evidently no longer intended, and the differences between the coinages of Henry IV., Henry V., and Henry VI. present a question for experts to decide.

But with the seventh Henry all is changed : in the nineteenth year of his reign our first Tudor king reverts upon his silver coinage to the profile bust, in disuse in England since the days of Stephen, and portraiture—even artistic portraiture—is established on our coins.

Starting from this point, let me review the causes which contributed to such excellent results as have from time to time been produced. I am, however, with regret obliged to omit many of our most noteworthy specimens because, on such examples as the beautiful gold coinage of Mary I. and of many of our kings, the figure is either too small, or the portrait is not sufficiently definite to give any real idea of the monarch's personal appearance. I must therefore turn my attention to those coins which bear the bust of the ruler upon the obverse, and see how far they give us any notion of the features or characteristics of the man or woman whose peculiarities we wish to study, without consideration of their often far more admirable reverse decoration.

Apart from the wave of artistic feeling, which, sweeping over Europe at the time of the Italian Renaissance, only began to be felt in England under our first Tudor king—apart from this wave of art, it appears to me that the qualities of the ruler, as much mental as physical, have exerted great influence on our coinage. The personal appearance of the man—handsome or the reverse—is, of course, a factor, but not one of primary importance, for everyone has some good points on which a clever artist may seize, *vide* the magnificent crowns of Charles II. and of Oliver Cromwell. Of far more service is the acumen of the monarch in entrusting the making of his likeness to the best portrait painter of his day. I do not mean that the painters were charged with the making of the dies or even of the designs for

such, but rather that the style of their portraiture influenced that of the contemporary engravers.

To these latter we must give the real responsibility of the effigies upon the coins, but unfortunately little is known about the authors of the Tudor coinage, and we look in vain for a Thomas Simon or a Nicholas Briot whose personal history is fairly recorded, and whose brilliant talents as artist and medallist combined, compel our admiration. However, be they identified or no, the actual makers of the Tudor coins and medals are not to be despised, whilst the dynasty which found England not much accounted of by other nations and in a state of civil war, left her respected and feared by her neighbours, and holding her own in commerce and in the arts.

Reverting, therefore, to the beginning of the sixteenth century, let me endeavour to trace in Henry VII. and his successors such qualities as contributed to the encouragement of the artistic development of the country.

A modern writer¹ has said of Henry VII. that "there was nothing too small for his attention," and he reminds us that Polydore Vergil² remarked that he allowed no one to usurp his authority, saying that he wished to rule and not to be ruled, whilst Bacon mentions that almost every leaf of an account book of Empson's was countersigned by the king's hand.³ Henry, therefore, can hardly be acquitted of the extortions practised in his name by his ministers—by Morton, Fox, Empson and Dudley, and though I admit the various good qualities, the shrewdness and acumen of the king, I cannot unreservedly endorse the unqualified praises lavished upon him by contemporary or early writers. But Henry's personality was impressive, and even Francis Bacon, writing as he did more than a hundred years after the king's death, even this wise statesman was perhaps the greatest of all the

¹ Mr. H. Fisher in vol. v of the *Political History of England*, p. 125.

² Polydore Vergil came from Urbino. He was born in 1470, and arrived in England in 1501. He became Archdeacon of Wells and wrote his *Historia Anglicana* at the suggestion of Henry VII. It was published in 1534. See *Political History of England*, vol. v, pp. 152-155.

³ I have seen at the Record Office a book of receipts of Sir Thos. Lovell from 1489-1495 in which each entry is attested by the sign manual of the King.

panegyrists of our first Tudor monarch, and if we, in the cold light of later centuries, find somewhat to blame, we must admit that in spite of the great difficulties of his position he achieved very remarkable results. Of all people, we, as numismatologists, should read his record with interest. Coming to govern a country devastated by civil war, he himself declared—so said Polydore Vergil,¹—“that his policy was directed not to the accumulation of treasure, but to the coercion of a fierce people who had been nurtured in faction,” and this, perhaps, was one reason for his frequent practice of impoverishing his opponents by heavy fines in preference to following the usual expedient of those times, that of executions. This policy, however, suited well, both with the clemency of Henry’s disposition and with the avarice for which he was noted. The king’s love of money amounted to a passion, but whether this passion resulted in a positive affection for the coin itself, who shall say? At any rate, it is undoubted that his currency received his careful attention. To our modern ideas it seems absurd that such laws should be passed, as those forbidding foreign merchants to leave the country carrying a larger sum than ten crowns, or to receive payment in money instead of goods.² It ministers, no doubt, to our national vanity to think that our coinage was so superior to that of some of our neighbours, that such methods of stopping the export thereof should be deemed necessary, but it is less satisfactory to learn that in 1503 the Irish currency was adjudged so defective, that the influx of the light silver coming from the sister isle had to be checked, and it was rendered penal to export more than six and eightpence in bullion, coin or plate to Ireland, whilst no merchant might carry more than three and fourpence from that country to England.³ In making or confirming such regulations, Henry was only following the customs of his predecessors at a time when it was thought that all foreign traders should traffic in kind only, exchanging the products of their countries for those of the land visited; and if these laws are not such

¹ Quoted in *Political History of England*, vol. v, p. 125.

² *Political History of England*, vol. v, p. 103. And Ruding, vol. i, p. 294. Statute 4 Hen. VII., chap. 23, reviving the statute of the 17th year of Edward IV., and further amplifying it.

³ Ruding, vol. i, p. 297. Statute 19 Hen. VII., chap. 5.

as we should now pass, at any rate they were better than the later expedient of Henry VIII., who debased his own currency to such an extent, that there was no danger of aliens even desiring to export our coins.

That Henry VII. had a difficult hand to play is clear, and he played his cards very well. He was a man of keen understanding, a good judge of character, even keeping a notebook in his own handwriting stating "whom to employ, whom to reward, of whom to enquire, of whom to beware," etc., etc.¹ I am almost inclined to say with Bacon that "he was one of the best sort of wonders, a wonder for wise men."² That he was a man of education is clear: Bacon³ states that he read French as well as Latin fluently, and Bishop Fisher in his funeral sermon says that "his speech was gracious in diverse languages." We have proof of his love of architecture in the beauty of his chapel in Westminster Abbey, commenced in 1503, and we hear that listening to music was amongst his few diversions. We are informed of his correspondence with Italian and other foreign courts, and it is possible that intercourse with such patrons of the arts as the Duke of Urbino may have directed his attention to portraiture. It is at least significant that Polydore Vergil, who was in the employment of Henry at the period of his third coinage, was a native of Urbino. Henry created the above-mentioned Duke Guidobaldo a Knight of the Garter in 1504, and as the coinage of Italy at this moment was improving rapidly in point of portraiture, I might perhaps be permitted to suggest that the bust of the Duke of Urbino upon his coins, being a fairly good profile to left, may have fired Henry to emulation. Guidobaldo reigned from 1482 to 1508, but he was, though a great patron of the arts, by no means the pioneer of the portrait coinage in Italy. He was the husband of Elizabeth Gonzaga, whose sisters-in-law, Isabella and Beatrice D'Este, in their respective courts of Mantua and Milan, rivalled one another in their collections of art treasures.

¹ Francis Bacon's *History of Henry VII.*, written in 1621, p. 218, of Pitt Press edition of 1876.

² *Ibid.*, p. 211.

³ *Ibid.*, p. 219.

The court of Milan, with which, however, Henry had less association, took the lead in respect of a portrait coinage, for the magnificent gold ducat of Francesco Visconti, Duke of Milan from 1450 to 1466, presented a splendid model for future generations to follow, and Galeazza Maria (1468-1476), his son Gian Galeazza, and brother Ludovico Moro (1494-1500), the husband of Beatrice, are scarcely less strikingly portrayed upon their coins. The Popes were by no means dilatory from the point of view of art, and I may call attention to the fine profile to left of Sixtus IV., who ruled from 1471 to 1484, and to the equally remarkable presentment of Julius II., Pontiff from 1503 to 1513, although the last mentioned effigy brings the famous Pope less vividly before us, in that we are accustomed to think of him bearded as in Raphael's well known picture. Both these Popes were of the Rovere family and connections of Guidobaldo of Urbino. I can but select some instances from the striking German coinages, such as that of Frederick the Wise of Saxony (1486-1525), whose thaler shows him admirably portrayed on the obverse, whilst the reverse bears the face-to-face busts of his brother John and his cousin George; or again the fine coins of the Empire, as exemplified by the magnificent portraits of Maximilian I., 1493-1519. A very early portrait is that of Sigismund (1439-1496), Arch-Duke of Austria, struck in the Tyrol.

Let us turn to the three countries with which Henry had most intercourse—Spain, France, and Scotland. In Spain, I may say, that his contemporaries, Ferdinand and Isabella (1474-1504) were, as Henry was in England, the pioneers of portraiture. Their face-to-face coinage bears a marked resemblance to their effigies both in wood and stone, and though the father of Ferdinand, Juan II. of Aragon, was portrayed somewhat better upon his coins than were some of his neighbours, his full-faced presentment is not really remarkable. The predecessors of Isabel in Castile did not practise portraiture. In France, Louis XII.'s profile (1498-1514) for a moment arrests the attention as being of the same style, though not as good, as Henry VII.'s, and it is curious to find that Scotland, always so much influenced by her French ally, in this instance preceded her and most other countries—that is, if we accept the attributions of Mr. Burns in his *Coinage of*

Scotland. This author gives reasons for stating that whilst the "thistle-head and mullet" groats with the bust of a king three-quarter to right were in his opinion of the second coinage of James III., who reigned from 1460 to 1488, the groat three-quarter to left² was his last, instead of being the currency instituted by James IV. and continued by James V. He dates the first mentioned groat 1471,³ and this, indeed, would be an early example of portraiture, but as James IV., the contemporary of our Tudor king (1488–1513), reverted during a portion of his reign to the conventional full-faced type, he can hardly be said to have acted as Henry's guide. Scotland's early coinages, such as that of David II. (1329–1371), are more suggestive of possible likeness than those of his fellow monarchs in England, but we must wait for the reign of James V. (1513–1542) to witness the appearance of the fine profile busts, which gain for the northern kingdom a high place in the numismatic world, and to him, between⁴ 1517 and 1524, Mr. Cochran-Patrick, with others, attributes the groat three-quarter to right mentioned above, and he suggests it may be the "Duke's Testoon" issued during the regency of Albany. James IV. was the son-in-law of Henry, and it was but shortly before the time of the latter's new coinage that the relationship between the two kingdoms became most friendly, for the marriage treaty, drawn up in 1499, took effect in 1503, when Margaret arrived in Scotland as the bride of James IV., but, as I have said above, James was no pioneer in the arts.

I fear that in my anxiety to trace the love of portraiture to its origin amongst the contemporary rulers of Europe, I have digressed too far from the position of affairs in our own kingdom, but I wished to prove that we were not far in the rear of other nations in this respect. It may be of interest to numismatologists to learn that in the goldsmith's art, so nearly allied to that of the designer of the

¹ Burns's *Coinage of Scotland*, Plate XLIV, Figs. 577–583 of vol. ii, pp. 115, 117.

² *Ibid.*, Plate XLVII and XLVIII, 636–646, and vol. ii, pp. 134–139.

³ *Ibid.*, vol. ii, p. 112.

⁴ *Records of the Coinage of Scotland*, Cochran-Patrick, Plate V, Fig. 8, and vol. i, p. 266.

coinage, England was also by no means behindhand, though it is possible that many of the artisans employed were of foreign origin.¹

An Italian traveller, as early as the beginning of Henry's reign, comments on the quantity of wrought silver then to be found in London. "In one single street," this Venetian² remarks, "there are fifty-two goldsmiths' shops so rich and full of silver vessels great and small that in all the shops in Milan, Rome, Venice, and Florence put together, I do not think would be found so many of the magnificence that are to be seen in London."

Polydore Vergil,³ who first came to England in 1501, expresses also his sense of surprise at the opulence of this kingdom in these respects, saying that in most English houses, however poor, there are silver saltcellars, silver spoons and silver cups. This speaks highly for the development of a country not long since devastated by civil wars, and shows that Henry's oppression of his subjects was not so great as it has sometimes been represented. His character was, however, one which did not improve with years. His minister, Morton, who influenced him mainly for good, died in October, 1500, and after the Archbishop's death, Henry's appetite for gold increased rapidly, but if there is anything in physiognomy, the coinage of 1504 should improve our opinion of the king, for our admiration is excited by the clear cut features, and the intelligent and benign expression of his face as seen on his third coinage.

Polydore Vergil describes Henry thus: "He was graceful, but firm and strong; his stature just above the average; his face beautiful,

¹ In the *Political History of England*, vol. v, p. 219, Mr. Fisher, speaking of a period only forty years later, says, "The subsidy rolls of 1540, suggest the inference that one-third of the population of London at that date consisted of alien artisans." Dr. Woltmann in his *Holbein and His Times*, p. 342, says, on the authority of Daniel von Wensin, who wrote in 1613, that "not long ago almost all the goldsmiths in London were Germans, amongst whom at that time the Netherlanders and Swiss were of course also reckoned." But we must remember that Henry VIII.'s Protestant proclivities encouraged the influx of foreigners, and he also employed many Italians and Frenchmen. See *Jewellery*, by H. Clifford Smith, p. 208.

² *Italian Relation of England*, p. 42, as quoted in *Political History*, vol. v, p. 11.

³ *Political History of England*, vol. v, p. 154.



HENRY VII., NATIONAL PORTRAIT GALLERY.

Photograph by Emery Walker.

especially when he was talking gaily ; his eyes were grey ; he had few teeth ; his hair was sparse.¹ Such was the king whose portrait on his coinage was, as Ruding² tells us, quoting Folkes, "a good representation of his other pictures," but as we shall see presently, authentic con-



HENRY VII.'S GROAT, THIRD COINAGE, MINT-MARK, LYS.

temporary pictures of Henry VII. in profile are not very common. Henry Tudor is described by Bacon³ as "a comely personage a little above just stature, well and straight limned, but slender," and he says of his countenance that it was "reverent and a little like that of a churchman." We must remember that Bacon, not being a contemporary writer, obtained much of his information from such authors as Polydore Vergil quoted above, but his remarks that the king's face, "as it was not strange or dark, so neither was it winning or pleasing, but as the face of one well disposed," is so apt a description of such pictures of our first Tudor king as are known to me, that I cannot forbear to quote it.

There are three contemporary portraits of Henry VII., one, a very remarkable and authentic oil painting on panel, in the rooms of the Society of Antiquaries at Burlington House. I must mention also that in the National Portrait Gallery, painted in 1505 by a Flemish artist for Herman Rinck, commercial agent at the courts of England and Germany ; but in common with other portraits of the king, these do not present the profile view with which we could best compare the

¹ Quoted in *Political History of England*, vol. v, p. 125.

² Ruding, vol. i, 299. Folkes's *English Silver and Gold Coins*, p. 16. "This king did also about the 18th or 19th year of his reign make a great alteration in the form of his coin, upon which his head is now represented crowned, but in profile, and with a good resemblance of his other pictures, whereas the heads of all our former kings had constantly been drawn in front upon their money since the time of King John."

³ Bacon's *History of Henry VII.*, Pitt Press ed., 1876, p. 220.

coin. There is some curious old painted glass portraying Henry VII. with Elizabeth of York at Stanford Hall, the residence of Lord Braye, which I believe came from the ancient house, but this, again, gives an almost facing picture. The head upon the carved panels at Haddon,¹ which are said to represent the same king and queen, shows the profile view in the case of the man, but it is more probably a portrait of Sir George Vernon, the owner of the hall in 1545, and I understand the evidence points to its origin being as late as the reign of Henry VIII. The east window in St. Margaret's Church, Westminster, which was, at one time, erroneously described as representing Henry VII., is now declared in guide books to depict Arthur, Prince of Wales,² and on the other hand Sir George Scharf shows excellent reasons for thinking Henry VIII. is the kneeling figure, and with this attribution the second coinage of the younger king agrees.³

The practice of painting in oils, already some time in use on the continent, was gradually making headway in England, and miniatures either on panel or in illuminated missals were not unknown, but the best remembered pictures of the king, such as those by Holbein and Hilliard, were, of course, executed in the time of Henry VIII. and Elizabeth, though no doubt taken from older originals. Excepting in size and a few details in dress, Hilliard's miniature is almost identical with the panel at the Society of Antiquaries quoted above. However, for a true likeness of Henry VII. I may confidently refer the reader to the effigy in Westminster Abbey, and to this the coins bear a marked resemblance.

It is true that the monument was not finished till nine years after the death of the royal model, but it was projected during his lifetime, and no doubt Pietro Torrigiano made use of a mask taken after death in order to construct his statue, a practice common at that time. Walpole⁴ mentions "a stone model of the head of Henry VII. in his

¹ *Haddon*, by G. Le Blanc-Smith, p. 64, Plate XIV.

² *History and Description of the Windows of the Parish Church of the House of Commons*, by Mrs. Sinclair.

³ *Archæologia*, xxxix, p. 249.

⁴ Walpole's *Anecdotes of Painting*, vol. i, p. 105. Wornum's edition.

death agony," by Torrigiano, from which we might infer that the artist had access to the king during his last moments; the date of Torrigiano's first visit to England seems difficult to establish, but is sometimes given as 1509.¹ The cost of the monument was £1,500,² for it was Henry VIII.'s special care, and we learn that, "the first draft of it was altered because it was disliked by him."³ Possibly the "first draft" may allude to the tomb begun in 1501 by Esterfelde, but if the stone head to which I referred above was the design first submitted by the great sculptor, one could hardly wonder that so painful though magnificent a study should not meet with the approval of the son, who would naturally prefer the calm and majestic effigy of his father chosen to typify his rest in peace. The bust, which at one time was at Strawberry Hill, is now in the collection of the Duke of Northumberland, and I understand that the family possess no certain information concerning the identity of the model beyond Walpole's tradition. It is extremely fine, and as far as I could judge from the drawing in Carter's *Specimens of Ancient Sculpture*,⁴ I cannot say that I agree with Mr. Charles Perkins,⁵ who says, "it in nowise resembles Henry VII.," but he further states that it has been said to have been made in imitation of the youth in the Laocoon, and to this there is a certain likeness. It would not, however, in any case prove that Torrigiano was present at Henry's deathbed as it might have been an idealised bust by the artist.

Henry VII. was fifty-two years of age when he died—his coinage represents him at the age of forty-seven. Introduced as it was only a

¹ See *Archæological Journal*, vol. li, p. 131, in which Mr. Higgins says, "We have no information of the exact date of his [Torrighiano's] arrival in England; it may well be as early as 1509, the year of the death of Henry VII., and the Lady Margaret, especially if my views are correct, that the Countess's tomb was made before that of the King."

² The contract between Torrigiano and Henry VII.'s executors for £1,500, was made on 26th October, 1512. The tomb was finished some time before 5th January, 1518–1519. *Archæological Journal*, vol. li, p. 141, and *Archæologia*, vol. xvi, p. 84.

³ *Memorials of Westminster Abbey*, by Dean Stanley, p. 148, and Vertue MSS., Add. MS. 23,069, f. 52B.

⁴ Carter's *Specimens of Ancient Sculpture*, vol. ii, Plate XL, and p. 44.

⁵ Perkins's *Tuscan Sculpture*, vol. i, p. 262.

few years before his death, the king's profile portrait was an interesting departure from the perpetually facing busts of his own early days and of his predecessors; it may have been intended to mark an epoch in the improvement of the currency, just as our early monarchs changed the obverse of their coins from full face to profile in order to draw attention to the calling in of the old money. But be the cause what it might, the coin from the point of view of art is singularly beautiful, and the reign of portraiture had begun in England, the profile bust from this time forth playing an important part in the decoration of the currency. It was certainly not always in use, for Henry VIII. and Edward VI. reverted to the less artistic full-faced heads on some of their coins, but even in cases where these were preferred, the effort after portraiture was maintained—indeed the facing busts of Henry VIII. in his later years are painfully like the king.

HENRY VIII.

The younger Henry at first continued to use his father's effigy upon his coinage instead of substituting his own portrait, replacing it



HENRY VIII.'S FIRST COINAGE: GROAT WITH HIS FATHER'S BUST; MINT-MARK, PORTCULLIS.

only in his second issue in the eighteenth year of his reign with his own bust, though of doubtful portraiture and still in profile, but his subsequent changes in the silver currency are marked by less and less pleasing presentments of himself full-face, or three-quarter face as the case may be, and these are, without doubt, truly representative of the king. We may, perhaps, partly attribute the ugliness of the later portraits to increasing personal defects in Henry's appearance; for he became in his middle age extremely fat and unwieldy, although in his

youth he was described as distinctly handsome. We must of course discount the panegyrics of contemporary writers at a time when to flatter was the safest course, but the Venetian Ambassador should be a trustworthy witness when writing to his own government. This Italian, Ludovico Faliero, was by no means lax in his criticism of the king's character, which he epitomises as "given up to idleness," but of his person, even at the age of forty, his praise is unstinted. He writes,¹ "It would not be enough to say that he is handsome, he resembles Cæsar; his look is calm and, contrary to English fashion, he wears his beard, . . . he rides very well, jousts and handles a lance with great skill; he is a good shot and an excellent tennis player." This foreign envoy, who further describes Henry as having "the face of an angel," must have seen something more attractive in him than I can find in his pictures, even in those by Holbein, which must have satisfied the royal model, since a story is told that one of the courtiers, complaining to the king of an affront, received from the foreign artist, was at once reproved.² "Of seven ploughmen," said Henry, "I might make as many lords, but not one Holbein, and remember if you ever pretend to revenge yourself, I shall look on any injury offered to the painter as to myself."

It is perhaps rather unfair to Hans Holbein³ to attribute the portraits on the silver of Henry's thirty-fourth year to his influence, although the versatility of his talents, as a designer of jewels and ornaments, and a maker of patterns for goldsmith's work, was such as might possibly lead us to suppose that he would be called upon, at any rate, to advise on such an important matter as the new coinage, in spite of the well-known jealousy of foreign interference displayed by the authorities at the mint in the sixteenth and seventeenth centuries.

The exact moment at which the full-faced bust was first issued is still undecided, the large amount of bullion set aside, evidently

¹ Alberi letters. See translation in Marion Crawford's *Gleanings from Venetian History*, vol. i, p. 87.

² Walpole's *Anecdotes of Painting*, vol. i, p. 71.

³ Hans Holbein the younger, born according to Dr. Woltmann in 1495 or 1496, died in 1543. See Woltmann's *Holbein und seine Zeit.*, Chap. III.

intended for the new coinage, between April, 1542, and 1543, would incline one to suggest an earlier issue than was thought probable, when the date was based¹ on the assumption in England of Henry's new title of King instead of Lord of Ireland in 1543. The subject had been discussed since 1537,² and an Act was passed in the Irish Parliament in June, 1541, whereby both Lords and Commons unanimously agreed that His Majesty and his heirs "should from thenceforth be named and called King of Ireland." The Act was proclaimed in St. Patrick's Church, Dublin, on the 19th of June, and, says Ruding, speaking of the Irish coinage, "On this occasion a new kind of groats was struck, being like his former money as to the shape and stamp, but different in style."³ The reverse bore the words **FRANCIS: ET: HIBERNIA: REX** with the harp crowned between the two letters **F—R.** each beneath a royal crown.

In September⁴ Henry wrote to Ireland to his Lord Deputy, saying that he had caused the Act "to be summe part amended," and ordering it "to be newly passed as it is now sent to you, and then to use this style following; Henry the VIIIth by the grace of God, King of England, Fraunce, and Irelande, etc." The ratification in Parliament of this distinction was not made in England till 1543,⁵ but it is possible that Henry, pleased with his new dignity, did not wait for the assent of his English Commons before adopting the *Hibernie Rex* on his coinage in this island, and indeed, Ruding⁶ says that his great seal was altered in 1541, whereas that of Ireland was only corrected in 1543, owing to some difficulty having arisen as to the engraving thereof.⁷ We may, however, be practically certain that the new English coinage with the full-faced bust did not appear as early as 1541, for there are groats to be found still bearing the profile head, though with the new title, and this title could not have been assumed,

¹ *Numismatic Chronicle*, Third Series, vol. vi, p. 116.

² *Numismatic Chronicle*, vol. xix, New Series, pp. 168 and 169.

³ Ruding, vol. i, p. 308.

⁴ *Numismatic Chronicle*, vol. xix, New Series, p. 170.

⁵ Ruding, vol. i, p. 309, quoting Stat. 35 Hen. VIII., chap. 3.

⁶ Ruding, vol. i, p. 312.

⁷ Aquilla Smith in *Numismatic Chronicle*, vol. xix, New Series, p. 179.

at the earliest computation until the middle of that year; it is, therefore, almost unsafe to conclude that the change of type did not take place until the thirty-fourth year of Henry's reign. But whether the full-faced coinage be dated from Henry's thirty-fourth year (April, 1542, to April, 1543) or from his thirty-fifth year (April, 1543, to April, 1544), time is still given for the execution of a design before the death of Holbein, which occurred between the 7th of October and the 29th of November, 1543, as is proved from his hastily made will,¹ probably executed when he was already attacked by the plague, and by the documentary evidence concerning the administration of his estate after his death. That he was in any way personally responsible for the execution of the design even if drawn by him, I do not think possible, for though he provided sketches for goldsmiths, both in Germany and England, there is no evidence of his practising their craft, and his son Philip,² who adopted their profession rather than that of his father, was not resident in this country.

But Hans Holbein left behind him pictures of the king, which, though differing in many respects from the coins, might be said to have served as suggestions, rather than as prototypes, for the busts on the silver currency both of the full-faced and three-quarter faced types; I illustrate a testoon of the former type.



TESTOON OF THE THIRD COINAGE OF HENRY VIII.

The largest known piece of those bearing the three-quarter face

¹ *Archæologia*, vol. xxxix, p. 2 *et seq.* Will discovered by Mr. Black in the archives of St. Paul's Cathedral.

² Dr. Woltmann quotes Iselin, a contemporary of Holbein's children, as saying "*Filios vero habuit Johan, Holbein, aurifabros, pictorem nullum,*" and there is evidence concerning Philip's apprenticeship to a Parisian goldsmith. *Holbein and his Times*, p. 330.

is the crown pattern in the Bodleian at Oxford, but it is so much worn that, except as an amplification of the smaller pieces, it is difficult to rely upon the portrait: there are modern imitations of this coin (see *Med. Ill.*, vol. i, p. 46, No. 42). It represents Henry in three-quarter length, and is figured by Rud. viii, 1, and Folkes, viii, 1. It is ably and fully discussed by Mr. John Loveday in the *British Numismatic Journal*, vol. i, pp. 139-147, where it is illustrated, together with an example of *Med. Ill.*, vol. i, p. 47, no. 43, thought to be a later and foreign copy with a differing full-faced portrait.

Many pictures at one time attributed to Holbein himself are now declared to be only "of his school," and it is not for me to enter into a discussion on the origin of these paintings, but it is an undisputed fact that great progress was at this time made in the art of portraiture in England, and whether by Holbein himself or by his colleagues and pupils, we do not lack representations of Henry. We might select from those acknowledged to be by Holbein, the cartoon in the possession of the Duke of Devonshire at Hardwick as the parent picture of many others.

This is the original sketch for the mural painting at Whitehall executed in 1537, but unfortunately destroyed by the fire of 1697. The cartoon contains the figures of Henry VIII. and his father, but their respective wives, Jane Seymour and Elizabeth of York, were also represented with them in the finished picture, and in this the face of Henry must have been more fully turned towards the spectator than the artist had at first intended. The family group in its entirety would have been unknown to us were it not that Charles II. caused Remigius van Leemput, a pupil of Van Dyck, to make a copy of it, which now hangs at Hampton Court and was subsequently engraved by George Vertue. In finishing the head, clearly, Holbein had recourse to his full-faced sketch of the king, now in the Munich Gallery, rather than to the Hardwick cartoon; probably this was in accordance with Henry's wish, for he seems to have preferred the facing portraits, inasmuch as he far more frequently chose these for reproduction than those giving the three-quarter faced view, excepting in the case of his gems—*vide* the two fine cameos at Windsor.



HENRY VII., HENRY VIII., ELIZABETH OF YORK AND JANE SEYMOUR. FROM THE ENGRAVING BY VERTUE.
AFTER REMÉE VAN LEEMPUT'S COPY OF HOLBEIN.

Curiously enough there are very few profile portraits to be found of Henry VIII. or his father, though they were much the fashion with their foreign contemporaries. Our frontispiece is taken from Vertue's engraving of the Whitehall painting and, allowing for the substitution of the crown for the hat and the veiling of the rich costume in a mantle, it brings the king before us just as we see him on his full-faced coins.

Perhaps more striking still is the close resemblance between Henry VIII.'s countenance on the testoons and another acknowledged work of Holbein's painted for Anne of Cleves in 1539. Miniatures



MINIATURE OF HENRY VIII., BY HOLBEIN ; MR. J. PIERPONT MORGAN'S COLLECTION.

by this artist are extremely rare, and I am indebted to Mr. J. Pierpont Morgan for the illustration of this celebrated portrait as photographed in its original ivory box.¹

For the prototype of the three-quarter faced issues, I place before



HENRY VIII. THREE-QUARTER FACED GROAT, THIRD COINAGE.

¹ The miniature is reproduced in colour in vol. i, of Mr. J. Pierpont Morgan's Private Catalogue, by Dr. Williamson, to whose kindness I owe the permission to illustrate it here ; the copyright of these illustrations being strictly reserved by Dr. Williamson on behalf of Mr. J. Pierpont Morgan.

the reader, in the accompanying plate, the magnificent little panel from Earl Spencer's collection at Althorp, one of Holbein's rare original paintings of the king; it is undated, but the portrait looks younger than the ordinary full-faced pictures. In it the head is turned to our right, as in the Hardwick cartoon; there is a good example, in oil upon copper, after this painting in the National Portrait Gallery. The actual duration of the German artist's activity in England was short, and we have, as far as I can ascertain, no absolute proof of his executing any painting for the king before 1536 or 1537, but Dr. Woltmann¹ states that he is mentioned in a letter as "the king's painter" in the year 1536, and he received a regular salary of £30 a year from Henry from Lady Day, 1538, apparently for portraiture, for the sergeant painter or artist responsible for the decoration of the palaces was at that time Andrew Wright,² who had filled the position since the death of John Brown in 1532, and Wright was succeeded shortly before the death of Holbein by Anthony Toto. The exact date of our artist's first visit to England is uncertain, but it is known that he left Basle³ for this country by way of Antwerp in August, 1526, and it is said that his earliest English dated pictures are of 1527. It is, however, not thought probable that Henry's attention was called by Sir Thomas More to the painter's powers between the years 1526 and 1529, the latter being the time when he returned for a season to Basle, as no portraits by him of the royal family of those dates are known. Mr. Wornum, in his *Life and Works of Holbein*,⁴ gives the following story of the year 1531 on the authority of Carel van Mander, though he does not vouch for its authenticity.

He says that the chancellor invited Henry to a banquet at his house, and showed him some of Hans Holbein's works, offering to present to him both the pictures and their artist, and that the king refused to accept the former gift, saying that "possessing the man

¹ *Holbein and his Times*, by Woltmann, p. 383, quoting a letter from Nicholas Bourbon to Solimar in 1536.

² *Holbein and his Times*, by Woltmann, p. 302, and *Archæologia*, vol. xxxix, by John Gough Nichols.

³ *Ibid.*, p. 295.

⁴ *Life and Works of Holbein*, by Wornum, p. 257.



HENRY VIII., BY HOLBEIN, AT ALTHORP.

Photograph by Hanfstaengl.

himself, he would have his pictures at command." There is no certainty that he immediately availed himself of the introduction, though Walpole,¹ in quoting the same story, appears to think that the king did so, giving Holbein lodgings in the palace and two hundred florins a year, besides paying him for his work.

One could wish that we could state with certainty that Holbein had painted Henry during his first visit to England, for to early pictures of the king, whensoever they can be accurately dated, we might look for information concerning the first portrait coinage. The groats and smaller silver of the year 1526 present a curious problem.



GROAT OF HENRY'S SECOND COINAGE. HIS OWN PORTRAIT.

Why should Henry at the age of thirty-five have substituted for his father's bust one representing himself as a very young and clean-shaven man? The silver coinage does not stand alone, for although the sovereigns, showing no change from the previous type, would not call for remark, the golden *bullæ*,² made especially for attachment to the English half of the French treaty of 1527, brings Henry unbearded before us, and the king's second great seal of 1532 much resembles his first. These are, however, more of a conventional than portrait type, and I will confine the question to the profile groat.

The fact that Henry was bearded in 1526 and earlier, can be proved in diverse manners—witness before all things the miniature at Windsor wearing a light young beard; this miniature is inscribed H.R. VIII. ANº ETATIS. XXXV., that is to say, it must have been painted between the 28th of June, 1525 and the 27th of June, 1526. By the gracious permission of His Majesty the King, I have been permitted to examine and illustrate

¹ Walpole's *Anecdotes of Painting*, Wornum's ed., vol. i, p. 70.

² In the *Archives Nationales Paris*, illustrated, Figs. 103 and 104, Plate XIX. Wyon's *Great Seals of England*, described, p. 71.

this and others of his miniatures, and the inscription is absolutely legible and reliable. The beard is soft and silky, the hair light brown and long.



BEARDED MINIATURE OF HENRY VIII. ; WINDSOR CASTLE.

For earlier dates we have the bas-relief catalogued as Torrigiano's at Hampton Court, in which Henry appears with his face adorned with a great deal of hair. This work is neither dated nor signed, and I should be inclined to assign it to a later period, but if Torrigiano was really the artist of the medallion, an attribution suggested by Walpole,¹ but disputed by Sir George Scharf,² it must have been executed before 1522 or at the latest in 1523. According to Vasari, Torrigiano left England in 1519 after the completion of Henry VII.'s chapel, dying in Spain a prisoner of the Inquisition in 1522, and although Mr. Alfred Higgins³ tells us that the sculptor must have survived till 1528, as is proved by a petition addressed by his widow to the Florentine law-courts, he considered it almost certain that he finally left this country in 1522 or 1523, having returned for a time, after but a short absence in 1519, to work upon the high altar in Henry VII.'s chapel, unfortunately destroyed in the Civil Wars.

¹ Walpole's *Anecdotes of Painting*, vol. i, p. 104.

² Sir George Scharf thinks it might be the work of Nicholas of Modena. *Archæologia*, vol. xxxix.

³ "The Florentine Sculptors," by Mr. A. Higgins, *Archæological Journal*, vol. li, p. 141, quoting petition granted on 5th November, 1528, in which the widow says, "Piero mortuus est et decessit jam sunt tres menses et ultra," with reference to Milanese Vasari, vol. iv, p. 264.

The year 1520 supplies us with much information respecting the king's beard, and if pictorial evidence is somewhat unreliable, here at least documentary proof is strong. Too much stress must not be laid upon the "Field of the Cloth of Gold" pictures at Hampton Court, representing the "Departure of Henry for France,"¹ and his "Meeting with Francis I.," because in two instances out of three the heads are restorations, whilst the third is so small that it is difficult to be absolutely certain that it is bearded. There are many pictures assigned to this date, mostly the work of French or German artists, such as a miniature in Mr. Pierpont Morgan's collection² or the half-length in the National Portrait Gallery, but of these the date cannot be positively stated; with documents, however, we can make no mistake. Sebastian Giustinian, the Venetian Envoy to England,³ writing in 1519 says "on hearing that Francis I. wore a beard Henry allowed his own to grow, . . . his beard was of a bright gold colour." In an entry in "The Letters and Papers of Henry VIII.," dated August 14th, 1519, we read, "as a proof of the King's desire [for an interview with Francis] he resolved to wear his beard till the said meeting." To requite this token of his affection, Francis laid his hand on his beard, and said, "surely he would never put it off till he had seen him."⁴ Further on, this resolve led to question and the Queen-Mother of France tells our Ambassador, Boleyn, that she had heard a report that Henry had shaved, which he, not knowing the truth, parried by saying "as I suppose it hath been by the Queen's desire—for I told my Lady that I have hereafore-time known when the King's grace hath worn long a beard

¹ This picture, as far as the ships are concerned, is said to be by Vincent Volpe, employed by Henry from 1514-1530, whilst the figures are attributed to John Brown, Sergeant Painter, from 1511-1532; the head of Henry was cut out, probably at the time of the Commonwealth, and somewhat badly restored.

² Illustrated in *The Connoisseur*, August, 1907.

³ Report of Sebastian Giustinian on his visit to England, *Letters and Papers of Henry VIII.*, vol. iii, Entry 403, p. 142; and *Venetian Calendar*, vol. ii, 1287, p. 559. September 10th, 1519.

⁴ Letter from Sir Thomas Boleyn, our Ambassador to France. *Letters and Papers*, vol. iii, Entry 416, p. 150.

that the Queen hath daily made him great instance and desired him to put it off for her sake."¹ But Catherine had not obtained her will, for Henry is described by a Frenchman at the actual meeting as "a very handsome prince, 'honnette, hault et droit,'—in manner gentle and gracious, rather fat, and with a red beard large and becoming enough."²

Whether or no Henry shaved later to please his first wife, we may ask ourselves. Possibly had I the leisure to have more thoroughly examined the large quantity of volumes of the Venetian Calendar or "The Letters and Papers of Henry VIII.," etc., I could have obtained more evidence, but we see that the king was still bearded during a part of the thirty-fifth year of his age, and if he shaved in the middle of 1526, it can scarcely have been to make himself agreeable to his Spanish wife, unless with a view to pacifying her jealousy, for his love for her was a thing of the past—thoughts of divorce were in his mind, and the star of the Boleyns was commencing to rise. Possibly he wished to appear younger and more attractive in Anne's eyes; she had been at court since 1521, and though it was not till towards the end of 1526³ or the beginning of 1527 that we have direct evidence of her intercourse with the king, Henry had given her father the title of Lord Rochford in 1525, and had caused the secret betrothal of Anne to Percy to be broken off.

But to return to the monarch's appearance—that he was not consistently bearded is suggested by an entry in Stow's *Annals*⁴:—On May 8th, 1535, the king commanded all about his court to be polled, and from thenceforth his beard to be knotted⁵ and "no more shaven"; clearly, therefore, until 1535 Henry was changeable in his fashions. Were it not that Faliero, see p. 91, speaks of his bearded chin in 1531, we might think that he had been clean shaven from the middle of 1526 onward, till he resumed his beard in 1535.

¹ *Letters and Papers*, vol. iii, Entry 514, p. 177, November 16th, 1519.

² La description et ordre du camp festin et joutes. Juin II., 1520, from *Letters and Papers*, vol. iii, Entry 869, p. 306.

³ *Political History of England*, vol. v, p. 258. *Letters and Papers*, vol. iv, 3218.

⁴ Stow's *Annals*, p. 570, ed. 1615.

⁵ A miniature at Windsor, dated 1536, shows Henry with his beard in short round curls.

Here again the miniatures come to our assistance. Amongst the rare unbearded portraits of Henry VIII. there is one at Windsor Castle which by permission of His Majesty, King Edward, I here illustrate. It is painted on a playing card and is described in



UNBEARDED MINIATURE OF HENRY VIII. ; WINDSOR CASTLE.

Charles I.'s catalogue as by Holbein, but Sir J. C. Robinson attributed it to Hilliard, and in the Windsor catalogue it still remains anonymous, for the attribution of these early works is very uncertain, but it is probably of earlier execution, and may just as likely be by Lavinia Teerlinck¹ or Lucas Hornebaude. This miniature, which was presented to Charles I. by Lord Suffolk, is undated, and is inscribed only REX. HENRICVS. OCTAVVS. There is also in the Royal collection an almost exactly similar portrait bearing the inscription

HR . AN^o VIII XXXV. As this is a late reproduction, at first sight the doubt arises as to the reliability of the date, but Sir George Scharf² calls attention to the precise resemblance of this nineteenth century copy to the fine miniature, painted on vellum, in the late Mr. Hollingworth Magniac's collection, and ascribed to Holbein by Sir J. C. Robinson.³

¹ Lucas Horebout or Hornebaude and his sister Susanah, were the children of Gerard Hornebaude, also painter to Henry VIII. Lavinia Teerlinck was appointed miniaturist at the salary of £40 a year to Edward VI., Mary and Elizabeth.

² *Archæologia*, vol. xxxix, p. 252, in 1862.

³ *Catalogue* of Mr. Magniac's collection, by Sir J. C. Robinson, No. 193, published in 1861, at which time it was still thought by some authorities that Holbein was in England rather earlier than is now believed to have been the case. See *Hermann Grimm in Künstler und Kunstwerke*, vol. ii, Nos. 7 and 8, 1866, and *Jahrbücher für Kunstwissenschaft*, vol. i, 1868, No. 1. Also Dr. Woltmann, in Nos. 2 and 3 of the last-mentioned work, and in *Holbein and His Times*, p. 294.

Mr. Magniac's cabinet was dispersed in 1892, and the miniature is now at Montagu House, where I have seen and examined it by the kindness of the Duke of Buccleuch, who also owns a seventeenth century copy thereof made by J. Hoskins, bearing the same inscription and date, but otherwise identical with the Windsor undated portrait, illustrated above. Mr. Magniac exhibited his examples at South Kensington Museum in 1865, and one may refer to the photograph of it there preserved in the Art Library. In all its details it is the same as the Windsor copy.

Holbein, so far as our evidence takes us, was not in England till Henry had completed the thirty-fifth year of his age, although until comparatively recently it was thought that a slightly earlier date was quite probable. It may be possible that it was partly on this account, if the miniature were to be attributed to Holbein, that Sir George Scharf suggested that owing to the signs of age and the fatness of the face, the figures might refer to the year of Henry's reign, *i.e.*, 1543, but this hardly agrees with Stow's "no longer shaven," or with the other portraits of the time. We cannot read the XXXV as meaning 1535 because the initials H. and K. are interlaced in a true lover's knot in the border surrounding the miniature, whereas for that date they should be H. and A. The letter K. must either stand for Katharine of Aragon between June, 1525, and June, 1526, in the thirty-fifth year of Henry's age, or for Katharine Parr between July 12th, 1543, when she married the king, and April, 1544, when the thirty-fifth year of his reign came to a close, also, if the work be that of Holbein, before October, 1543, when, as we have seen, he died. Curiously enough there are some other beardless portraits which may synchronize with the coinage, such as the window at St. Margaret's, Westminster, referred to on page 88 as representing Henry VIII. and Katharine of Aragon. The glass is thus described by Mr. Winston:¹ "It is not likely that it should have been painted after the king's scruples respecting the validity of his marriage had arisen, but I think, judging by the analogy of other examples, that it is as late as 1526 or thereabout." Some authors² have suggested a doubt that the head is original, as parts of

¹ Winston's *Hints on Glass Painting*, part i, p. 180.

² Westlake's *History of Design on Painted Glass*, vol. iv, p. 54.

the window have been restored, but Sir George Scharf was not amongst them, and he should be a reliable guide.

Again, on the frontispiece and the last page of Higden's *Polychronicon*, from a rare copy of which book I am by the kindness of Messrs. J. and J. Leighton permitted to illustrate the portion which



WOODCUT PROOF, HIGDEN'S *POLYCHRONICON*.

By permission of Messrs. J. and J. Leighton.

bears upon our subject, we have a curious vignette of Henry. The date of this edition is 1527, and I am unable to hear of any instance of the former appearance of the woodcut, which is of English workmanship, and as such, remarkably good for the period ; the origin of the portrait is however uncertain, and I only mention these examples to show that possibly Mr. Magniac's miniature does not stand alone, as a picture of Henry clean shaven about 1526. The vignette in Higden's *Polychronicon* rather reminds us of the medallic portrait (*Med. Ill.*, vol. i, p. 30, 14) in the Marquess of Bath's collection and others resembling this medal in type ; but these are bearded and undated.

Without wishing to set up my opinion against that of Sir George Scharf, I cannot forbear saying that to me the face in the miniature does not look older than thirty-four, and we know that Henry was

already fairly fat at that age, furthermore, the new Great Seal, the coinage of Henry's thirty-fifth year, and the many other pictures of the time, do not support the theory that in the year 1543 the king was clean shaven, wore his hair long, a flat cap instead of the large hat usually portrayed by Holbein, or a very *décolleté* costume; whereas the coins, as we have seen, and other evidence suggest that he might have been so represented in 1526. I fear I have detained you too long on this question, and you will say, "To what tend these explanations?" only that if we knew the precise date of the issue of Henry's second coinage we might find that it corresponded almost exactly with the change in the king's appearance.

It is, as I have said, difficult to assign a date to the issue of Henry's second groat, and the question of the possibility of an earlier appearance to fit the young face of the portrait has been discussed by abler numismatologists than myself. But though the indentures of June, 1526, for the making of a fresh coinage, and the subsequent proclamations concerning it give no details as to the type of the silver, only prescribing a change of weight, it seems impossible to divide the gold from the silver, as the mint-marks correspond, and in the absence of quantities of groats of the new type, as heavy as those bearing Henry VII.'s portrait, we cannot suppose their issue to have been prior to 1519, as the young beardless bust of the king would suggest. The proclamation of November 5th, 1526,¹ ordered that the "new coins should be made sterling like the others, but differing in weight," as Ruding² puts it, or as we read in the *Letters and Papers of Henry VIII.*³ "The silver coinage to pass at the present rates, and a new issue to be made in which the ounce troy shall be converted into three shillings and ninepence in groats, half groats, pence, halfpence and farthings," but the weights of the coins in their present state vary so greatly that it is not easy to obtain definite calculations. Suppose therefore the coinage did not appear till the end of the year 1526,

¹ The words of the proclamation are . . . "But alsoe other coynes of gold and silver shal be newly made stricken and coyned from henceforth," etc., etc.

² Ruding, vol. i, p. 304.

³ Entry 2609, p. 1159, of *Letters and Papers of Henry VIII.*, calendared by Brewer.

whilst the dated and *bearded* miniature in the Royal Collection was painted in the earlier part of Henry's thirty-fifth year of age, shortly perhaps after June 28th, 1525, there is then ample time for his discarding his beard, in the last months of 1525 or the first half of 1526, and for the dated and *unbearded* miniature in the Magniac cabinet to have commemorated this change of fashion; whilst the new coinage would follow in due course at the end of the year, and the likeness be correct.

If those more learned in portraiture and in numismatics than myself, are of opinion that this is improbable, I can only apologise for having so long detained you, falling back upon the conclusion that till awakened by Holbein to an appreciation of portraiture, most likely Henry took no interest in the affair, gave no sitting to his artist at the mint, who in his turn, taking as model some stone effigy or not very recent picture, which so far I have been unable to trace, made the required change in the bust to draw the attention of a people, who could not read, to the alteration in the coinage of 1526. The introduction of a beard would be a matter which would probably not occur to him, it would be difficult to give the light silky appearance of the soft hirsute adornment worn by the king, and it would be a great innovation, inasmuch as since the time of Henry III. no bearded coinage had been seen in this kingdom. It is therefore possible that the artist, taking the matter from the conventional point of view, substituted the head of a youthful king for that of his father an elderly king, and thus made the requisite landmark in the currency. I must also mention that Henry's contemporary, Francis I. of France, who ascended his throne at the age of twenty, remained portrayed upon his coins as young and unbearded throughout his long reign, though he too was wearing a beard at the Field of the Cloth of Gold, and did so till his dying day, and this in a country, which, far more than England, had come under the influence of the Italian Renaissance.

In Germany, the native land of Hans Holbein, where¹ Albrecht Durer

¹ I do not purpose to discuss the claims of Albrecht Durer to the position of medallist, but I believe it is generally thought that he made at least three models for portrait plaques, and, as the father of German engraving, may be said to have founded a School of Art. See Forrer's *Dictionary of Medallists*.

(*b.* 1471, *d.* 1528) had brought engraving to a perfection hard to equal, the medallic art had not before the time of the latter made such rapid progress as it had in Italy. The Italian medal was the product of portraiture allied to modelling in wax, for the “*cire perdue*” process was in use, whilst in Germany it was the outcome of carving and goldsmith’s work, but the medallists of the land, where Hubert Van Eyck had set the fashion of representing the minutest details in painting, could not fail to portray faithfully when once the idea had taken root. Small carved bas-reliefs in wood, lead or soapstone—together with medals—were well known in Germany by the beginning of the sixteenth century, where the Men of the school of Albrecht Durer—such as Ludwig Krug, who died in 1532, Peter Flötner, whose death took place in 1546, Hans Reinhart, who survived till 1581, and others too numerous to mention—were producing admirable portraits of the various Teutonic



LEADEN MEDALLION OF HENRY VIII. ; BRITISH MUSEUM.

princes, and specimens of their handiwork occasionally made their way to England. There are portrait plaques of Henry—probably of German execution roughly taken from Holbein's designs—the exact date of which is not known, but they resemble the pictures of the king in his middle age. By kind permission of the British Museum authorities, I am able to illustrate one of these rare leaden medallions, which certainly reminds us strongly of the fine picture in the Gallerie Nazionale in the Palazzo Corsini at Rome, to which the well-known three-quarter length figure at Windsor bears so great a resemblance though varying in details of dress, that it has been suggested the painting now in Italy may have served as the model for this and other reproductions, unless all owe their origin to the Whitehall wall painting. The leaden plaque, which is contemporaneous, probably served as a basis for the German or Dutch medals, one of which Simonis attributes to Stephen of Holland, an obviously mistaken idea. Most of them appear more recent of execution and are, as Mr. G. F. Hill¹ has proved, of quite different workmanship.

But whether or no we trace Holbein's influence in the portraits on the coinage of Henry VIII., it is undeniable that the later coins



DEBASED GROAT OF HENRY VIII. THREE-QUARTER FACE TO RIGHT.

resembled the king. Even the more debased issues in their increasing ugliness must, to judge by contemporary pictures, still have been good likenesses. An engraving by Cornelius Matsys, dated 1548, brings vividly before us a face with pendulous cheeks—much wider below than above—a cunning face with little pig's eyes embedded in fat, and thus most likely was Henry in his last days, a very different man from the dignified, though portly prince immortalised by the great Holbein himself some years earlier.

The later coinage is so debased as to be barely recognisable,

¹ "Stephen H., Medallist," by G. F. Hill, *Burlington Magazine*, March, 1908, p. 363.

certainly the silver gives us little idea of any lingering beauty ; allowance must however be made for the fact that the beard portrayed full-face on a surface but slightly raised, gives a greater breadth to a countenance already too broad, than would be noticed in a picture or in the individual.

From an artistic point of view, the facing coinage is always undesirable, but for reasons which must take precedence of the artistic question, it was no doubt considered necessary to show a marked change in the type on the calling in of the old currency.

Although Henry might appreciate the magnificent truthfulness of Holbein's portraits, he was not the man to give time or thought to a fine coinage. His regrettable prodigality was mixed with a false economy, and the readiness with which he grasped at any method of obtaining money without considering the ultimate result upon the credit of the country, was directly responsible for the debasement of the coinage. He had dissipated the large savings of his father, which Bacon¹ tells us amounted to "near eighteen hundred thousand pounds, a huge mass of money for those times." He undid much that his father had done for the commercial improvement of England, and by his suppression of the monasteries, he dealt a serious blow to art, inasmuch as the monks in their seclusion were the leisured class, who gave up their time to the practice of learning and the painting of missals. Down to this date the majority of portraits were those preserved in devotional books, as it was a favourite custom to depict the recipient or the donor of a missal upon some of its pages.

Had Henry not survived his great minister, Wolsey, in whose hands he very largely left his affairs during his young days ; had he reigned over England but twenty years, it might have been possible to endorse the panegyrics pronounced upon him by some contemporary writers. Brought up until the death of his elder brother in 1502 with a view to entering the Church, Henry gave himself to study in his early youth, was a good linguist, a proficient in music, playing the lute, organ and harpsichord, so great an

¹ Bacon's *History of Henry VII.* (Pitt Press ed., 1876), p. 210.

admirer of architecture that he is described as "the only Phoenix of his time for fine and curious masonry,"¹ and a patron of learning, saying to Mountjoy, who wrote the same to Erasmus, that without learned men, "we should scarcely exist at all." In the passionate wilfulness and self-indulgence of his later years one can see little to admire, but the arts flourished in the kingdom, and that not without Henry's personal superintendence, for we read in a letter of 1540, that he kept the key of his picture gallery² in his own custody, a habit he shared with Francis I. of France, whom Henry always emulated. He was a collector of beautiful armour, and the inventory³ of his pictures, tapestries, etc., may still be read. Vertue tells us, *Brit. Mus. Add. MS.*, 203, 68, f. 27B, that "Henry VIII. would have encouraged Raphael and Titian to come to England but could not obtain it." All that added to his personal grandeur was appreciated by the king, but the steady degeneration in his character is observable from about the time when he first thought of repudiating the virtuous and learned Katharine of Aragon, and the good influence of Wolsey was removed.

The apologists for the king have sought to throw the responsibility for his worst acts upon his later ministers, but a monarch, who does not hesitate to behead his servants the moment their policy ceases to be subservient to his caprices, must be held responsible for his own government. Certainly we have little for which to thank Henry in type, in standard or in art upon his later coins, and his successor had a hard task to bring the coinage again into repute; indeed, under Edward VI. things went at first from bad to worse, some of the shillings degenerating from one-third to one-quarter only of silver mixed with the alloy, whilst many of the base pieces bearing Henry's name, continued to be issued after the death of the father until such time as Edward was able to carry out some of the

¹ See Harrison's *Description of England* in Holinshed, ed. 1577, book ii, chap. ix.

² Letter from Wallop to Henry, 17th November, 1540, *Letters and Papers*, vol. xvi, p. 118, Entry 276. "Afterwards the King (of France) showed him a gallery of which he keeps the key himself as Henry does."

³ Published in Appendix of Wornum's *Life of Holbein*. See also Walpole's *Anecdotes of Painting*, vol. i, p. 203, ed. 1888.

improvements, which, had he lived longer, he would no doubt have effected in their entirety.

EDWARD VI.

In a most interesting article in the *Numismatic Chronicle*,¹ Sir John Evans explains his reasons for believing that much of the base coinage bearing the bust and name of Henry, was really issued in England during the early part of the reign of his son, and in Ireland even in his closing years. In a former paper² he had already called attention to the fact that the half-sovereigns, Ruding VI, No. 12,



HALF-SOVEREIGN OF EDWARD VI. BEARING HENRY'S NAME.

bearing a young portrait and Henry's name, could hardly belong to the later years of the elder monarch, and must rather be said to bear the same effigy of Edward VI., as is seen in Ruding, Plate VII, No. 3, although the late king's legend remained unchanged.

The course thus followed by the young Edward was the exact opposite to that pursued by his father, and by Charles I., who preserved the likeness of their predecessor upon their first coinage, with a new cognomen. Had these half-sovereigns really belonged to the issues of Henry VIII., under which they are usually still placed in books for purposes of reference, they would present a more curious anomaly than the portrait groat we discussed on page 97 *et seq.* In an exhaustive argument based on the analogy of mint-marks and the evidence of certain issues commanded by Edward, yet not represented by a coinage bearing his own effigy or name, Sir John Evans proves

¹ *Numismatic Chronicle*, Third Series, vol. vi, 1886, pp. 114-160.

² *Ibid.*, New Series, vol. xii, 1872, pp. 193-198.

that the silver coinage previously credited to the later years of Henry VIII., must, with the gold, be attributed to the son, although passing as Henry's.

Amongst other base groats, Sir John assigns that bearing the legend REDDE CVIQVE QVOD SVVM EST to the young king, and considers these unaccountable words as "more in accordance with the changeable¹ taste of Edward VI. and his mint-masters than any of the pieces with the more common and ordinary legends." The late Mr. A. E. Packe,² in an article on the origin of such inscriptions, believing the coin to be of the year 1546, explained the inappropriate sentence as a reference to the passing in that year of the Statute 37, Henry VIII., Chap. 9, "which by repealing the laws against usury, and making a rate of ten per cent. lawful, was the first actual recognition of the legality of interest for money lent"; this explanation is ingenious, but does not fit in with the arguments advanced by Sir John Evans.



REDDE CVIQVE GROAT.

Though not consistent with a base coinage, it seems possible that Edward was striving to hold out hopes of an improvement to come, for there is a pathetic half-promise in the words which conclude an entry in his journal in April, 1551, concerning an order to make 20,000 lbs. weight of coins "for necessity somewhat baser, to get gains of £16,000 clear, by which the debt of the realm might be paid, the country defended from any sudden attempt, and the coin be amended."³ That Edward, young as he was, realised the disastrous

¹ *Numismatic Chronicle*, vol. xii, New Series, p. 198.

² *Ibid.*, vol. xii, Third Series, pp. 264, 265.

³ Burnet's *History of the Reformation*, vol. ii, Part II, p. 36, ed. 1849, where the journal is printed from the original in the Cottonian MS. Nero CX.

condition to which the coinage was reduced by his father, is clear from the constant notices in the journal, kept by him from the year 1550 onward, by the advice of his tutor, Sir John Cheke. How far the young king was himself the sole author of the sixty-eight folio leaves of this diary has been disputed,¹ but if not all of his own composition, it still shows the interest taken by him in the subject of the currency, to which it contains frequent references. He received a special report from Master Thomas (the Clerk of the Council), who supplied him with notes on the coinage, and on the steps contemplated for restoring its purity, and it is said that it was by Edward's own order that this paper was prepared,² though probably inspired by Northumberland, whose policy it was to improve the currency.

Sir John Evans³ tried to account for the continuance of the late king's portrait and name on the base money, by the distaste of Edward to countenancing the issue of such bad silver, and the desire that his portrait should denote the fresh currency when a purer coinage should appear.

We cannot be surprised that so important a reform could not at once be carried into effect. A boy king upon the throne, at first too young to regulate his own affairs—though even then not devoid of intelligence—the short protectorate of Somerset, whose visionary schemes for the improvement of the country and his own advancement led him to the scaffold, the constant quarrels begotten of the religious controversies brought about by the late king's high-handed measures—



HALF-SOVEREIGN OF EDWARD VI., 1549.

¹ In *King Edward VI.*, Sir Clement Markham, p. 137, says, "Hallam doubts whether Edward wrote it; Froude thought Thomas might have written part of it. Burnet and Nicholas had no doubts that Edward was the author."

² *Ibid.*, p. 140.

³ *Numismatic Chronicle*, vol. vi, Third Series, p. 160.



EDWARD VI., NATIONAL PORTRAIT GALLERY.

Photograph by Emery Walker.

peculation and dishonesty at the mint, all these things would lead us to expect little from the currency of Edward VI., but towards the end of his reign, after the advent of Northumberland to power, a great improvement is to be found, and some of the coins belonging to the later issues are really fine, whilst the portraits reverting to the profile type, as seen on the half-sovereign, crown, and half-crown, even as early as 1549, whilst Somerset still ruled, must, to judge by comparison with the pictures of that day, have been very like the young king.

It is interesting to compare these coins of Edward, aged eleven, with his profile portraits in the National Portrait Gallery at the age of six¹ and nine years respectively. The first is here illustrated, whilst the latter is a grotesque and elongated panel, which must be viewed in perspective through an aperture designed for the purpose at the side, when the likeness is very well seen. This picture, which was in the collection of Charles I., was probably² earlier in the possession of Queen Elizabeth, for Paul Hentzner, who visited England in her reign, speaks of it thus: "The picture of King Edward VI., representing at first sight something quite deformed, till by looking through a small hole in the cover, which is put over it, you see it in its true proportions." Walpole thought the artist was Marc Willems (born in 1525), but it is not so catalogued³; it is more curious than beautiful.

In both portraits we see the child's face turned to left instead of to right, but the profile of the coins is very reminiscent of them, as it is also of the most recently executed of the drawings, of which the majority are attributed to Holbein, in the great Windsor collection. There are also two early full-faced sketches of Edward in this fine series of eighty-three portraits of the celebrities of Henry's court: the portfolio containing them was acquired by Charles I., from whose keeping it passed to that of Lord Arundel, finally to return to the

¹ There is a good example of this six-year-old portrait in the Jones Collection at the Victoria and Albert Museum.

² W. Loftie's *Whitehall*, p. 18.

³ Walpole's *Anecdotes of Painting*, vol. i, p. 135, ed. 1888.

⁴ See *Portraits of Illustrious Personages of the Court of Henry VIII.*, by Richard Holmes. Second Series; Plate I.

possession of the Crown. These drawings of Edward represent the little prince as Holbein saw him, but at so young an age that the sketches cannot have served as prototypes for the coinage. The German artist died, as I have said, when Edward had barely completed his sixth year, and it is thought that the third and latest of the portraits in this collection may not be by his hand,¹ presenting as it does the profile picture of a fairly grown boy. It is not for me to give my opinion on the matter, but I can only say that the drawing is very beautiful, and sufficiently like the coins, nor do I myself think that the child looks much more than six years old. It is more nearly produced in a large leaden plaque in the British Museum, *Med. Ill.*, vol. i, p. 56, No. 7, than in any specimen of the coinage.



LEADEN MEDALLION OF EDWARD VI.

There are many later portraits of the young king which used to pass as the works of Holbein, who was the only artist permitted to have access to the child in his infancy.² These are now attributed to Guillem Stretes and other painters of Holbein's school, and amongst

¹ Dr. Woltmann is of opinion that it does not represent Edward. See *Holbein and his Times*, p. 433.

² Woltmann's *Holbein und Seine Zeit*, p. 462, or English edition, p. 433.



PICTURE OF EDWARD VI. IN OIL ON PANEL.

them I suggest that we should look for the prototypes of the full-faced coinage, bearing in mind that in no case within my knowledge is a coin an absolute reproduction of a picture. I only deem it possible that the general designs of the dies were inspired by contemporary portraits.

I have often been struck by the resemblance between some of the facing busts of Edward VI.—even those of inferior workmanship, and a beautifully finished little oil painting on panel, which hangs immediately above the coin cabinet with which I am best acquainted.

This portrait is probably a miniature version of the three-quarter length at Petworth, at one time thought to be by Holbein, but now perhaps assigned to Guillem Stretes,¹ and is like the well-known Windsor picture. The coins also much resemble, as regards the head, a panel painted by the same artist in 1550, now in the possession of Lord Aldenham, but here the young king is more plainly dressed, and we find a nearer prototype amongst the miniatures in the Royal Collection, where there is one, by Hilliard,² which, Sir Richard Holmes states, is painted from an original by Stretes.

It is known that Guillem Stretes came to England during the last year of Henry VIII.'s reign, and it is noted that he was paid a salary as court painter in 1551 of £62 10s.—this is the year of the full-faced shillings of Edward's third silver issue, and I may be permitted to draw attention to the great similarity between these and the miniature above referred to, if allowance be made for the usual substitution of the crown for the hat.



SHILLING OF EDWARD VI., 1551.

¹ *Archæologia*, xxxix, p. 46-56, by Sir George Scharf.

² Reproduced in the *Burlington Magazine*, January, 1906, Plate II, in Sir Richard Holmes's article on Nicholas Hilliard.

The so-called full-faced coins are, like the portrait, a little more than three-quarter to left. The latest pictures of Edward show us an intelligent looking and fairly grown boy, for we learn from Sir John Hayward that "he was in body beautiful, of sweet aspect, especially in his eyes, which seemed to have a starry liveliness and lustre in them."¹

We have a fresh type in the fourth gold coinage of Edward VI., a three-quarter length figure reminding us of the young king's coronation medal, the first executed in England; see *Med. Ill.*, vol. I, p. 53.



CORONATION MEDAL OF EDWARD VI.

No. I.² I am able to illustrate this fine work from the National Collection.

These sovereigns, half-sovereigns and crowns, possibly served as



HALF-SOVEREIGN OF EDWARD VI., 1552.

¹ Quoted in *Holbein's Court of Henry VIII.*, by Edward Lodge, 1828.

² The reverse of this medal being rather illegible it may be well to state that the inscription thereon is the Hebrew and Greek rendering of the legend on the obverse.

a prototype for some of James I.'s pieces on which the portrait is, however, larger, and more distinct, but as James was thus portrayed in Scotland from his early youth up, I only wish to call attention to the fact, that he revived the type in England from the days of Edward VI.

On Edward's coins, three-quarter length in armour, the face is too small to give much more evidence of the boy's features, than do the sovereigns of the old-fashioned full-length type with the king seated upon the throne; they are, however, of good workmanship and bear careful examination through the magnifying glass, whilst the figure is not ungraceful.

It has been rather usual to cry down the appearance and faculties of the boy-king, but his letters bear evidence of a capacity, which had but too little time to develop, and we may readily concur with Ruding,¹ who tells us that in 1553, when Mary came to the throne, she found the coinage nearly raised "to a perfect standard by the wise and unwearied exertions of the late king," to whom, speaking of as early as September, 1551, he says the credit is due for the reformation of the coinage which "began at that time to be attended to with considerable diligence." We can hardly doubt that had Edward lived, the reforms finally carried out in the days of Elizabeth would have been sooner effected, whereas Mary at first swerved from the straight path, inasmuch as that whilst she issued a proclamation in August, 1553, providing for a pure currency, she contradicted it by an indenture which debased the currency 1 dwt. worse than that of 6 Ed. VI.²

I have said that not much is known about the actual makers of the coinage, but for the sixth year of Edward's reign, Ruding³ gives the name of one cuneator, "Deric Anthonie, said to have succeeded Robert, lately deceased." This is the same engraver of whom Walpole⁴ writes, "Now I am mentioning the Mint I shall take notice that among the patent rolls is a grant in the sixth of Edward to

¹ Ruding's *Annals of the Coinage*, vol. i, 328.

² Ruding, vol. i, 327.

³ Ruding, vol. i, p. 44, reference to Harl. MS. No. 698, fol. 51.

⁴ Walpole's *Anecdotes of Painting*, ed. 1888, vol. i, Plate 137, and Vertue, Brit. Mus., Add. MS. 23072, fol. 79.

Anthony Deric of the office of capital sculptor of the monies of the Tower of London, and at the end of the same year John Brown is appointed surveyor of the coins." Ruding¹ gives the name of Vincentius as engraver to Philip and Mary, but we find that he again mentions Derick Anthony in the second to the eighteenth year of the reign of Elizabeth.² He, in fact, remained longer in the employment of the Queen than Ruding had reason to suppose, for I have found frequent mention of him in the calendars of the State Papers (domestic) as "Graver to the Mint" in 1574³—in 1584, etc., whilst the name of his son, Charles Anthony,⁴ appears amongst these documents in June, 1599, as replacing Derick Anthony, deceased, who lately held the same office of graver of the mint and seals in the Tower—fee £30 a year."

There is a great similarity in the workmanship of the beautiful gold pieces, for instance, in the sovereigns of all these three monarchs, and one cannot help wishing one knew more about the cuneator, who may have been the artist, and to whom we owe many excellent portraits of the two sisters and of the brother, the last of whom died all too young for the good of the coinage.

I must pass on to the succession of Mary, but may I be permitted to end this short sketch of Edward's brief life with some of the words of Latimer—"I will tell you this, I speak what I think, His Majesty hath more godly wit and understanding, more learning and knowledge at this age, than twenty of his progenitors that I could name had any time in their lives."⁵

MARY I.

During the reigns of Henry VIII., of Edward VI., and of their immediate successors, portraiture was making steady progress in England, though not necessarily the work of Englishmen. We find

¹ Ruding, vol. i, p. 44, reference to Mr. West's note-book.

² *Ibid.*, reference to Harl. MS. No. 698, fol. 120.

³ State Papers, Dom. Lemon, 1547-80, p. 476 : also Addenda, 1566-1579. Green, p. 125 and p. 459.

⁴ *Ibid.* Green, 1598-1601, p. 224, dated June 30th, 1599.

⁵ Quoted by Sir Clement Markham, p. 130, of his *King Edward VI.*, from a sermon by Latimer.

miniaturists mentioned, such as Lavinia Teerlinck, Susannah Hornebaude, and the brother of the latter, Lucas, from whom, according to Carel van Mander,¹ Holbein learned the art of miniature painting. There are fine portraits painted in great numbers, and even a few medals, the latter being almost exclusively of foreign workmanship. Art was more and more appreciated in England, and such painters as Antonio More and Lucas de Heere visited our country, whilst noted medallists sent over their productions to Mary's court, and contemporaneously with these the portraiture of the queen upon the silver currency improved.

It is true that the bust upon the groats still issued after the queen's marriage was but a reproduction of her earlier coinage, but Ruding² accounts for this by saying that these "were probably struck before a new die could be prepared." This head, though pretty, is weak as to



MARY I.'S SECOND GROAT.

likeness, and is far less suggestive of the angular and austere looking woman than her effigy, as it appears on the shillings and sixpences facing Philip. On these one may trace the foreign influence of such artists as More, whilst the medals of the royal pair are very striking, reminding us of both pictures and coins. The best of these medals are by Italian artists, and it was in Italy that medallic portraiture first became fashionable. Vittore Pisano, commonly called Pisanello, who was born in Veronese territory about 1390, and died not later than 1455, had combined the profession of painter with that of the medallist. It has been said of him³ that he was "great in portraiture, great in composition, great in design," and his services were eagerly solicited

¹ *Holbein and his Times*, p. 370.

² Ruding, vol. i, p. 328.

³ See Mr. G. F. Hill's *Pisanello*, p. 1.

by the rulers of Mantua, Milan, Naples and Ferrara. The d'Este family could not bear to be outdone in their patronage of the fine arts, and the rivalry between the various Italian petty states became as great in the acquisition of curios as of territory. One of the ladies of the house of d'Este, Isabella, wife of Francesco, Marquis of Mantua, (1474-1539), whose voluminous correspondence with a much-loved sister was closed only by the death of the latter, was almost as much excited by the possibility of obtaining some of the art treasures belonging to the deceased as grieved at her loss. The passion for portraiture was perhaps carried almost too far, and the Medici were depicted in classic myths as gods and goddesses, or the donor of an altar-piece designed for a church was represented in company with the early Fathers of the Church. The medallic portraits were, of course, of the greatest utility from their portable nature, and Pisano had many followers, some of whom, such as Jacopo da Trezzo and Leone Leoni, have left us excellent likenesses of the celebrities of their day.

A fine medal of Philip is attributed to Leone Leoni, *Med. Ill.*, vol. i, p. 75, 26, but of greater interest to English collectors are the magnificent medallic portraits of the wedded pair, by Jacopo da Trezzo, for the similarity presented to the silver currency from 1554 to 1557 is so marked that, were it not that one of these medals is dated in 1555, we might have thought that it had served for a model for the coinage. It is true that there are undated medals with the same portrait of Mary, but with differing reverses, one of which is thought to refer to the period of her marriage, and though the corresponding bust of Philip is dated 1555, there is a smaller medal which bears no dates. It shows less of the Prince's figure than we see upon the coin, but like the latter portrays him in the order of the Golden Fleece, omitted from the larger medal, and in this more nearly resembles it. However, it is usually stated that the larger preceded the smaller example.

The finer work of Jacopo da Trezzo bears the legend round Philip's bust, PHILIPPUS REX. PRINC. HISP. ÆT S. AN. XXVIII, and below, IAC. TREZZO. F. 1555. It must, therefore, have probably been executed in the earlier months of 1555, as Philip completed his twenty-



OBVERSE OF *MED. ILL.*, VOL. I, P. 71, MEDAL 77. PHILIP II., BY JACOPO DA TREZZO.



OBVERSE.



REVERSE.

SHILLING OF PHILIP AND MARY.



REVERSE OF *MED. ILL.*, VOL. I, P. 71, MEDAL 71. MARY I., BY JACOPO DA TREZZO.

eighth year on the 21st of May. If we assume the medal was cast in Madrid, we must reckon the year 1555 as commencing with the 25th of December, 1554, as we should call it, for the Castilians so computed the year from 1383 until 1556,¹ thus giving a period of nearly five months, in which time the medal must have been executed.

According to Ruding² the coins made their appearance immediately after the queen's marriage, though, he says, that "no indenture of these pieces has ever been discovered." The shillings dated 1554 cannot therefore have been copied from Trezzo's larger design, but it is quite probable that both specimens of the medallic art owe their origin to one self-same picture of the queen, inasmuch as it is thought that Philip must have supplied the Italian artist with an authentic portrait, there being no reason for supposing Jacopo ever visited England. He lived at Madrid, where the splendid painting of Mary, by Antonio More, is one of the glories of the Prado, but as this fine picture does not present a profile view, it could not have been the only guide provided for the medallist. Jacopo da Trezzo executed much work for Philip, and died at Madrid in 1589. The magnificent cameos of this king in the Royal Collection and in the Victoria and Albert Museum are attributed to him.³

The portraits of Mary, medallic or pictorial, which bring her most vividly before our eyes, as we conceive her to have been at the time she married Philip, are those of a depressed and rather haggard woman, grown old before her time with the disappointment caused by the blighting of all her affections in constant family quarrels, the suppression of her religion, and her questionable title to the

¹ The custom of beginning the year on January 1st was observed in Spain from very early times until December 16th, 1350, when Peter IV., King of Aragon, commanded that the year should commence on Christmas Day in his dominions. In 1383, John I., King of Castile, made the same enactment. The use of the year of the Nativity continued in those kingdoms and their dependencies and conquests until 1556, when the earlier custom of beginning the new year on January 1st was resumed. Pp. 25-31, and 39, of Professor Rühl's *Chronologie des Mittelalters*.

² Ruding, vol. i, p. 328.

³ *The King's Gems*, by H. Clifford-Smith. *Connoisseur*, vol. v, p. 242.

crown.¹ Mary had but two passions in her life, her devotion to her faith, and her unreciprocated love for her husband, and both these passions increased her unpopularity with her Protestant subjects, who dreaded her severity in the persecution of those who did not agree with her, and looked with distrust upon the Spanish policy, which they feared would be introduced by Philip to the detriment of this kingdom.

The reign of Mary was short, and the haughty Spaniard, frequently absent on his own affairs, had not time to exert any important or permanent influence upon this country. But to numismatologists it is of interest that he, for a season, left his mark upon the currency, inasmuch as the face-to-face type, introduced in the year 1554, was a great innovation, and an assertion of equal rights in the government hardly warranted by his position. Mary's love for him may be said to be typified by the fact that, not content with placing his name as king upon the coins, she, in some cases, joined his effigy to her own, whilst the crown, which she was unable to bequeath to him, was poised in mid-air between her consort and herself.

The fashion of these coins came directly from Spain, being derived from the escudos or gold double ducats of Ferdinand and Isabella. The design was no doubt chosen as especially applicable to Mary and her husband, for both were directly descended from the Spanish king and queen, Mary being their granddaughter, and Philip their great-grandson; moreover, Isabella, like Mary, was a reigning sovereign in her own right, and as such, when the Salic law was almost universal, a precedent for Mary's accession.

We might, of course, carry back the face-to-face type to our early Anglo-Saxon sceattas, such as Ruding, Plate 26, No. 8, or to its possible prototype in Roman times, to 12 B.C., when two busts of the goddess Fortuna faced one another on the coinage, or to later examples, citing amongst others Nero with his mother Agrippina,

¹ Mary's claims to the throne were mainly based upon the limitations of her father's will, for not only her parent's divorce but all constitutional precedents were against her. The Salic law had hitherto prevailed, and Henry's assumption of the right to divert the lawful descent of the crown from the male line was as characteristic of the man, as it was contrary to the customs of England: but policy and necessity were Mary's sponsors.

A.D. 54–68, or Marcus Aurelius with Commodus and Lucius Verus, A.D. 161–169, who, reigning conjointly, are placed face to face. Again, the reader will remember the rude facing busts of the Visigoths, A.D. 701–709, but the immediate Spanish prototypes suffice.

It was not strange that Philip should have imported this fashion into England, as it was still in use in some of the Spanish dominions in his own time, and such a coin I am here able to illustrate.



ESCUDO OF FERDINAND AND ISABELLA OF SPAIN.

This type was first used in Spain in June, 1497, by Ferdinand and Isabella, and continued to be copied in the Netherlands for a considerable period. The portrait of these monarchs remained upon their escudos during the reign of mad Joanna, wife of Philip the Fair, and the minority of their son, Charles I. of Spain, afterwards the Emperor Charles V., whilst some examples even exist bearing the name of Philip II. In the Low Countries, the workmanship of the Dutch imitations is rougher than that of the gold originally coined in Spain, but they are often confused with one another, even by experts. The daughter of Philip II., Isabella, Duchess of Brabant, in conjunction with her husband, Albert of Austria, struck escudos of the face-to-face type as late as 1598–1611 in the Netherlands, then governed by them as a fief of Spain, and the same fashion is occasionally to be met with in other foreign countries, especially upon medals.

There are such coins of Antoine de Bourbon and Jeanne d'Albret in Navarre, 1552–1562; of Henry IV. and Margaret in France, 1589–1604 and others; but, to come nearer home, Scotland shows some rare examples of this practice in the coinage of her Queen Mary. We find the Queen of Scots in gold, together with her French husband, Francois II., in 1558, and in silver, conjointly with Darnley,

in 1565, but, excepting occasionally upon a medal, this fashion took no hold upon the English people, and when the opportunity occurred for its reappearance during a dual occupation of the throne, namely, in the joint reigns of William III. and Mary II. the classical jugate bust asserted its sway. The Spanish type of the new silver was no doubt agreeable to Mary Tudor; half a Spaniard by birth and more than half a Spaniard at heart, anything that reminded her of her much-loved and persecuted mother, or of her adored husband, would specially appeal to her; I even suggest that possibly on this account the type of the half-crown for the second issue of silver after Mary's marriage did not meet with her approval. The busts of the two monarchs appear on the opposite sides of this coin instead of face to face as on the shillings. There are only three specimens known of the half-crown of 1554; it was, therefore, perhaps a pattern, and as in the orders during Mary's reign for shillings and sixpences, no mention of this coin is made, the non-issue thereof might be due to the fact that half-crowns were not required, or, and I think more probably, because its design was rejected.

The placing of a bust on the reverse as well as on the obverse of a coin was unusual in mediæval times, but it occurs upon some of the currency of Saxony for A.D. 1525, and Ludovico Sforza¹ (Il Moro), Duke of Milan, and his wife, Beatrice d'Este, were thus portrayed between 1494 and 1500, even after the death of the wife, whilst their predecessors, Bona of Savoy² and Galeazza Maria made use of the same fashion; the younger³ Galeazza (Gian) also appears so pictured with his uncle, Ludovico, as regent.⁴ If we go back to earlier times, on Byzantine and Roman coins there were many examples of its use, and though rare amongst the Greeks it was seen in Egypt: there was therefore ample precedent for the type.

Whether or not, as I suggest, the preference for the Spanish fashion influenced Mary in the choice of her representation on the

¹ *Monete di Milano*, Gnechi, Plate XVII, 7.

² *Ibid.*, Plate XV, 1.

³ *Ibid.*, Plate XVI, 1.

⁴ To the excellency of these portraits I have already referred on p. 84.

coinage and caused her to reject the half-crown, it is clear that the custom of placing a bust on both sides of a coin found no favour in England, though in use at all times upon medals, and the only instances of its reappearance lie in patterns of the reign of William and Mary, which were again in their turn rejected, such as the farthing, Montagu 15, which although by no means unpleasing, was not selected for use.

As far as Philip and Mary were concerned, the personal appearance of the wedded pair did not conduce to a handsome coinage. Philip was eleven years younger than his sickly, middle-aged and—must we say it?—plain wife, whose only vanity was shown in the endeavour, by adorning herself with the jewels he had given her, and with fine clothes, to make herself beautiful in his sight, though she was naturally of a repellent, retiring and cold disposition, more given to reading and the practices of piety than to pomps and vanities. A modern writer¹ has described her as “a faded little woman with a pinched white face, no eyebrows and russet hair,” and this is just as her pictures bring her before us. Mary² was extremely small, but this does not affect her portraiture upon her coins; in this respect she resembled Margaret of Beaufort, the mother of Henry VII., rather than any of her immediate forbears, for Henry VIII. was tall, and Katharine of Aragon above the middle height, whilst the parents of Katharine also were well proportioned.

Philip is always represented by contemporary writers as handsome, fair of complexion, as became his Austrian descent, and wearing a light curly beard, but his heavy underhanging jaw with its ugly lower lip, so characteristic of the Hapsburg family in the sixteenth and seventeenth centuries, was a great disfigurement, and on medals and coins, where the beauty of colouring is not seen, there is little to attract the beholder. The exhibition, held at Bruges in the summer of 1907, of all things that concerned the Order of the Golden Fleece, afforded a great opportunity to anyone interested in portraiture, for comparing the medals of Philip with his painted presentments, and in none of these, in my humble opinion, can his face account for the

¹ Martin Hume's *Queens of Old Spain*, p. 212.

² *Pageant of London*, vol. ii, p. 97.

attraction he appears to have exercised over women. Already once a widower at the time of his marriage to Mary, he again sought and obtained a bride¹ within a year of the death of his English queen, to whom his union had been actuated by motives of policy only.

His third wife was a young and beautiful woman, who ensured his affection, but he had always treated Mary with nothing more than a grave and stately courtesy, and she was by no means free from incentives to jealousy. His interest in her kingdom was only that taken by an astute foreigner, who deemed it a possible, though it proved a very disappointing, ally against France, and he thought it almost as important, when hopes failed him of having an heir by Mary, to establish friendly terms with Elizabeth, whom he would have been willing to marry on her sister's death, as it had been to preserve the devoted affection of his unfortunate queen.

It cannot be said of Mary that she was unappreciative of art. She was painted not only by Antonio More but by Lucas de Heere,² and her exquisite jewelry and handsome raiment, though criticised by the Spanish followers of her husband, show that her taste was better than that of Elizabeth, whose vanity led her into indiscretion in these matters. But the portraiture of the elder woman is rather dispiriting; we pity her sad countenance, thin lipped and peevish; and she strikes us as looking more like the mother than the wife of her fair-haired, blue-eyed husband. She was beloved by few of her subjects, for she displayed none of the brilliant qualities which endeared her far less conscientious sister to her people.

One of the courtiers who attended Philip to England describes Mary thus: "Although she is not at all handsome, being short of stature and rather thin than fat, she has a very clear red and white complexion, she has no eyebrows, is a perfect saint and dresses very badly."³ This last remark was probably called forth by shocked

¹ Elizabeth of Valois, or Isabel of the Peace, as the Spaniards called her. See *Queens of Old Spain*, p. 263.

² One of the most pleasing pictures of Mary is by Lucas de Heere, in the collection of the Society of Antiquaries, painted 1554.

³ Narrative of Pietro Enriques quoted by Martin Hume in *The Year after the Armada*, p. 157.

feeling engendered in the stiff Spanish hidalgo by the independent ways of the English women, who wore "short petticoats, the farthingales making them often shew their black stockings on horseback," which he considered¹ "quite indelicate, when they are seated riding." The great offence, however, was their habit of directing their own horses, for "whoever elsewhere saw a woman on horseback alone, and even riding their own steeds well, and as much at home on their backs as if they were experienced horsemen." Another member of Philip's suit describes Mary as speaking of herself to her husband as "an old and ugly wife."² The magnificent jewels presented by the bridegroom to his mature bride on his arrival were much treasured by Mary, and a great pearl pendant which he gave her is noticeable in most of her portraits. But we must leave this rather pathetic figure, admitting that the coinage of her successor, with its infinite variety, offers a more interesting study, and whilst to do Mary justice, I must say that at any rate the beautiful gold currency was maintained at a proper standard in her reign, we must wait for the days of Elizabeth to see the silver put upon a satisfactory footing, the bad money all called in, the base shillings of Edward VI. countermarked with a portcullis or a greyhound, and ordered to pass respectively for fourpence halfpenny and twopence farthing each,³ "the worst sort . . . not to be current at all, nor received for any value, the groat to be current for twopence."

ELIZABETH.

At the time Elizabeth succeeded Mary, Pisano had but recently died, and the medallic art abroad was, as I have said, in a flourishing condition; the clever crayon sketches by Holbein in Germany and England, by Francois Clouet and his school in France, or the highly finished small paintings for which they served as the basis—all were in

¹ Narrative of Pietro Enriques, etc., p. 171.

² Narrative of Giovanni Car, who in Italian calls her "brutta e vecchia." Martin Hume. *Ibid.*, p. 136.

³ Folkes's *English Silver and Gold Coins*, p. 50, quoting Holinshed, "with which," as he says, "also John Stow and Mr. Camden do perfectly agree."

great demand. We have seen that the miniature painted on vellum or on the back of a playing card had come into prominence, and this form of portrait to some extent superseded the less portable drawings, could not be used so easily for personal adornment. The miniatures executed for Elizabeth by Nicholas Hilliard, "the Queen's goldsmith, carver, and limner," were in high favour, and he is often cited as our first great English miniaturist. The days of the illuminated missal were past; the miniature was to take its place in the realm of art as the sixteenth century progressed.

Although there still exists a book of prayers written by Elizabeth and adorned for her use by Hilliard with her portrait and that of Alençon, she did not, as a rule, approve of a decorated prayer-book, so long the medium and preserver of likenesses. In this she differed from Catherine de Medici, Queen-Dowager of France, whose "livre d'heures," illuminated with miniatures of her entire family, including her daughter-in-law, Mary, Queen of Scots, presents valuable examples of the portraiture of the day. But the English queen, though she angrily rejected an illuminated service-book offered to her by one of her clergy, was usually ready to accept gifts, especially works of art, and in return she often permitted her courtiers to wear her presentment, whether medallion or in the form of a cameo or miniature set in a "picture box," as the ornamental pendant was then called, and there are many instances of her causing such portraits to be painted for the purpose.

A foreign traveller, Paul Hentzner,¹ who visited her court in 1598, speaks of a cabinet beside her bed, which contained miniatures of her favourite of the moment and her other adorers, as amongst Elizabeth's greatest treasures.

She was a curious compound of the extravagance and vanity of her parents, and of the shrewdness of her grandfather, Henry VII. She loved splendour at the expense of others, she would accept any sacrifice at their hands, and though too clever a woman to be really deceived, she would swallow any amount of flattery. To her excessive

¹ Knight's *London*, vol. i, p. 344.

vanity rather than to her love of art, one may attribute the great variety, and in some cases the great beauty, of her coins. There is a well-known but apocryphal story told of Walpole's hideous hook-nosed fragment of a gold coin, and of the similar half-crown. Elizabeth is said, when the coin was presented to her as a pattern, to have cut it up in a rage with a pair of shears, a feat no woman could perform! Walpole¹ has it that the coin was broken by her command, and some workman cut out and preserved the morsel which contained the face. The coins, which have the appearance of having been made far more recently, like the story, are not above suspicion, but though the latter be an allegory, "se non è vero è ben trovato," for Raleigh, in the preface to his *History of the World*,² says that her "pictures made by unskilful and common painters were, by her owne commandment, knocked to pieces and cast into the fire." For my part, I believe that had she ever really seen that presentment of herself, she would not have left so much of the face intact.

In her early youth, though not beautiful, she was eminently graceful. According to her own description of herself her stature was "neither high nor low," in spite of which fact she had the vanity to wear monstrous heels when in full dress, and this accounts for the discrepancies of historians on the point of her height. Her hair has been variously called "auburn" and "yellow," whilst in her youth, as Sir James Melville³ tells us, she delighted in showing her golden curly locks. In her old age she undoubtedly wore a red wig, many of these appearing in the inventory of her wardrobe at her death. She hated growing old, and when the Bishop of St. David's preached before her, choosing as his text, "Lord, teach us to number our days that we may apply our hearts unto wisdom," instead of complimenting him in one of her graceful speeches, as was usual, she told him "to keep his arithmetic to himself," and implied that "wisdom" did not always come

¹ First edition of Walpole's *Catalogue of Royal and Noble Authors*, vol. i, p. 126; and Forrer's *Dictionary of Medallists*, under Martin; and *Numismatic Chronicle*, New Series, vol. i, p. 189.

² Raleigh's *History of the World*, p. 10, ed. 1634.

³ Sir James Melville's *Memoirs*, 1683.

with years, "for I see that the greatest clerks are not always the wisest men."¹

In few of her portraits, except perhaps in those by Gheeraedts, do the signs of age appear, and it is written by Hilliard² himself that when he painted her he was commanded to place her in the garden that no shadow should fall upon her face. "Her Mat^e, therefore, chose her place to set in for that porposse in the open ally of a goodly garden where no tree was neare nor any shadowe at all, save that the Heaven is lighter than the earthe, so must that little shadowe that was from the earthe; this her Majestie's curious demand hath greatly bettered my judgement."

To the habit thus acquired some have attributed the flat and shadowless appearance of some of Hilliard's miniatures, especially noticeable in those portraying Elizabeth. Isaac Oliver also noted in his pocket-book that the queen "would not allow him to give any shade to her features, telling him shade was an accident and not naturally existing in the face." Sir Robert Maunton³ says of her, "She was of personage tall, of hair and complexion fair therewith well favoured, but high nosed," whilst Hentzner describes her at the age of 65 as covered with jewels—just as we see her on her more ornate coins—wearing a red periwig, having a wrinkled face, a hooked nose, shining little eyes, and black teeth. This "hooked nose" is very apparent in the monument of Elizabeth carved by Colt (Maximilian Poultrain) at a cost of £600. It was begun in 1605 and finished in

¹ Creighton's *Queen Elizabeth*, p. 185.

² "A Treatise concerning the Arte of Limning, f. 8. Writ by N. Hilliard at the Request of R. Haydocke." The original MS. is in the Edinburgh University, but a transcript was kindly lent me by Mr. Philip Norman. This treatise must not be confused with Harl. MSS. No. 6,000, at one time thought to be by Nicholas Hilliard, and still known as "Limning by Hilliard," because it bears his name on the fly-leaf and largely quotes the above, though not verbatim. No. 6,000 Harl. is now thought to be by Edward Norgate, Windsor herald to Charles I. Both MSS. passed through the hands of Walpole and Vertue, and the latter in his MS. (Add. MS. 23,070, f. 68) speaks of a paper on the Art of Limning, "Writ by Hillyard according to a promise made to Dr. Richard Haydocke who published Lomatius from Italian to English 1598, four years before the death of Queen Elizabeth, whom he mentions to have drawn."

³ *Side Lights of English History*, by Henderson, p. 1, from *Fragmenta Regalia*.

the following year, being modelled from a mask taken after the Queen's death, which would account for the slight exaggeration of the more prominent features. Mr. Richard Davey tells us¹ that, according to a letter in the Hatfield Papers, there is reason to believe that Hilliard had a hand in the details of the dress in this tomb, but it does not specially recall any miniature by that artist to my recollection. I have compared the fine crowns of 1601 and 1602 with the effigy on the monument, and the likeness is exact, although the coins give the impression of a handsomer woman than does Colt's presentment of her. We must remember that the crowns were executed five years after the above unflattering description was written by her foreign visitor, so that credit is due to the artist, probably Charles Anthony, who produced at once a true and striking numismatic portrait of the queen.



ELIZABETH'S CROWN OF 1601.

It is sometimes stated that Elizabeth, in consequence of the personal defect of "a yellow neck," preferred high dresses in her old age, and this tradition is borne out by her pictures by Gheeraedts, and by the beautiful cameo portrait, in a chin ruff at Windsor, and at the Bibliothèque Nationale. These gems, if their attribution to Julien de Fontenay² be correct, must portray her in her later years, as it is said he was sent over by Henry IV. from France for the purpose of making her portrait, and this king only ascended the throne in 1589. It has been suggested that these cameos might be the work of Atsyll³ quoted

¹ *Pageant of London*, vol. ii, p. 159.

² *Handbook of Engraved Gems*, by C. W. King, p. 127.

³ *Archæologia XLV*, *The Queen's Gems*, by C. Drury-Fortnum; *Connoisseur*, April, 1903, *The King's Gems*, by Mr. H. Clifford-Smith; *Walpole's Anecdotes*, vol. i, pp. 101 and 108.

by Walpole as engraver of stones to Henry VIII., and if so they might be of earlier origin. It is very difficult to date pictures by costume, as the open and close ruffs, as also the low and high-necked bodices seem to have been contemporaneous,¹ and it is noticeable that the coins of the queen, be she young or old, are always in the "partlet" or high chemisette, whether in a large or small ruff. We find, however, that Elizabeth had no invariable rule as to her fashions, for Hentzner describes her at the age of sixty-five as having "her bosom uncovered as all English ladies have till they marry," and the jettons or so-called patterns for 1601 (Rud. XV., 9 and 10) show the queen full face, the open bodice (formerly preferred by her) being seen, as well as in some of the beautiful medals cast to commemorate the saving of England



ELIZABETH'S PATTERN SIXPENCE, RUDING XV, 9.

from the Spanish Armada which give a portrait in an open ruff (*Med. Ill.*, vol. i, pp. 154 and 155, Nos. 129 to 131). These medals are thought to be of English workmanship, and though some of them are of more recent production, the portrait on them may be traced back to an interesting contemporaneous silver shell or thin embossed plate. (*Med. Ill.*, vol. i, p. 183, No. 186.)

Possibly by far the most beautiful of the Armada medals is by the same hand as this cliché, though of infinitely finer execution. It is numbered 129 in *Medallic Illustrations of British History*, and an illustration appears on the following page.

This is undoubtedly a production of the period, but it did not serve as a model for the coinage, on which, unless in very high relief, Elizabeth preferred the profile type, as better suited to medallic portraiture.

¹ *Portraits of Elizabeth*, by Mr. F. M. O'Donoghue, Preface, xiv.

It is unfortunate that such medallions as No. 129 and others of similar workmanship of the days of James I. remain anonymous, and



ARMADA BADGE, *MED. ILL.*, VOL. I, P. 154, NO. 129.

it is not for me to make suggestions as to their possible origin, but it has often struck me that in default of many signed examples of goldsmith's work by Nicholas Hilliard with which to compare them, one may be allowed to wonder whether as "an embosser of medals of gold"¹ he might be responsible for them.

Sir Richard Holmes,² in describing the artist's antecedents, says, "His' mother was Laurence, daughter of John Wall, a goldsmith of London. It is probable that he was initiated in his early years in the mysteries of this craft by his grandfather. The art of the goldsmith was intimately associated with that of the enameller, and though no specimen of his work in this manner is known to exist, yet the description of the jewel which he executed, representing the battle of Bosworth Field, gives an idea of the excellence to which he must have attained." The enamel to which Sir Richard refers was catalogued by

¹ Rymer's *Fœdera*, Tom. XVII, p. 15, and Walpole's *Anecdotes on Painting*, vol. i, p. 175. Patent of James I. granting Hilliard a licence "in respect of his extraordinary skill in drawing, graving and engrossing, to make all pictures of the Royal family, and calling him our principal drawer of small portraits and embosser of our medals of gold." See also Vertue's MSS., Brit. Mus., Add. MS. 23069, f. 45b.

² *Burlington Magazine*, "English Miniature Painters," by Sir Richard Holmes p. 229, January, 1906.

Vanderdort in the collection of Charles I., that monarch having purchased it from Laurence Hilliard, the son of Nicholas. Although the ornament has disappeared, the miniatures with which it was embellished are still in the Royal Collection at Windsor, and have already been referred to in this paper. See ante pp. 88 and 115.

There is another remarkable pendant in Mr. J. Pierpont Morgan's collection known as "The Armada Jewel," on account of its reverse decoration, which may have been the work of Nicholas Hilliard as the maker of the queen's jewels. It was sold at Christie's in July, 1902, for no less a sum than £5,250. It was then believed that it was given by Elizabeth to Sir Francis Drake¹ on his return from his famous voyage in 1580, but the magnificent Drake Jewel is still in the possession of a member of that family, Sir F. Fuller-Elliott Drake,² and later investigation has led Dr. Williamson, the author of Mr. J. Pierpont Morgan's splendidly illustrated catalogue, to decide in favour of the claims of Sir Francis Walsingham, to whom it is known that such a jewel was presented, because he rendered special service in hindering the Spanish preparations for the outfit of the Armada in 1588. It forms the frontispiece of the first volume of Dr. Williamson's work,³ and by his kind permission I am able to reproduce it, the copyright being strictly reserved by him on behalf of Mr. Pierpont Morgan.

On opening the enamelled back a miniature of Elizabeth is disclosed, which is dated 1580; though unsigned it is attributed to Hilliard. The obverse of this case presents a gold profile bust of Elizabeth on an enamelled background. The golden portrait is most elaborate and was compared at Christie's to the obverse of the fine ornament in the British Museum known, on account of the legendary bird portrayed on the reverse, as the Phœnix Jewel or Badge (*Med. Ill.*, vol. i, p. 125, No. 71), but I should not feel justified in suggesting that

¹ Forrer's *Dictionary of Medallists*, under Hilliard.

² Elizabeth knighted Drake on the 4th of April, 1581; on his first arrival the legality of his conduct had been questioned, and an enquiry held on the subject, was finally decided in his favour.

³ The illustrated catalogue of Mr. Pierpont Morgan's collection is for private circulation, but has been presented to various museums.



ARMADA JEWEL IN THE COLLECTION OF MR. J. PIERPONT MORGAN.

they are by the same hand, and the portrait is not identical. A medallion exists (*Med. Ill.*, vol. i, p. 124, No. 70), bearing a similar presentment of Elizabeth to the Phoenix Badge above mentioned—of this there is a modern imitation which is sometimes signed Nicholls, but the original work is unsigned. Contrary to his usual practice, Evelyn (93), in illustrating this medallion, drew the head looking in an inverse direction, a mistake constantly made by engravers copying a design on the plates or die instead of reversing it, but presumably he intended to describe this example of the Phoenix Badge though his drawing is far from good. He dates it 1574, but gives no reason for so doing. A specimen in the British Museum has the same figures roughly incised, but these,¹ though old in character, appear to have been subsequently scratched in with a sharp instrument. The portrait on the obverse of Mr. Pierpont Morgan's pendant far more nearly resembles another medallion of Elizabeth of rougher workmanship, (*Med. Ill.*, i, p. 132, No. 85), known as the Garter or Personal Badge, whilst the design of the reverse, an ark upon the waters, is similar to that of one of the Armada Naval Rewards of 1588 (*Med. Ill.*, i, p. 148, No. 119), again by a different, and I should say, though I may be wrong, a later hand. At the British Museum there is a contemporary leaden medallion bearing the same obverse bust as 119, but it has no reverse, probably therefore there were complete pieces of this date.

But, if I am not mistaken, and I speak with all diffidence, we have in the fine enamelled "Armada Jewel," which contains Elizabeth's portrait attributed to Hilliard; and in the no less beautifully elaborated Armada Badge with its contemporary chain (*Med. Ill.*, vol. i, 154, No. 129, illustrated on p. 133), a similarity of portraiture and lettering which makes me wonder whether, if the one be the work of Nicholas Hilliard, the others should not also represent the handiwork of the Court "embosser of medals and gold." Of course, though I have seen and handled both pendant and badge, and have been able to compare the illuminated presentment of the former with the original of the latter, I could not have the opportunity of placing the pieces actually side by

¹ Possibly Evelyn may have based his date upon this particular specimen.

side, and as the golden profile in the "Jewel" is covered by a convex glass, it is difficult to examine the workmanship, so that it is not easy to speak with confidence.

The question then arises—with what work known with certainty to be by Hilliard, can we compare these treasures of the goldsmith's art? The answer is, that in 1587, a grant¹ was made to the carver and limner of the queen of the lease of the manor of Poyle, Stanmore, for twenty-one years, "in consideration of his paines in engraving the great seal of England." This was the second great seal of Elizabeth, that of 1586, of which an illustration will be found on Plate XXIII, of Wyon's *Great Seals of England*, Nos. 113 and 114, and fine impressions are to be seen in the British Museum. There is a beautiful design² for a seal of Hilliard's illustrated by the Vasari Society, Part III, No. 32, which Mr. Campbell-Dodgson shows reason for thinking must have been the sketch for the great seal of Ireland; this drawing reminds me in treatment, and especially in the queen's face and open ruff, of the Armada Badge 129, which presents even slighter differences to the English great seal, No. 113 on Wyon's plate, where the head is turned to left just as it is in the badge, though the dress is different. It is, of course, difficult to judge accurately from an old wax impression, but very specially in lettering and in the design, the obverse of Elizabeth's second seal, by Hilliard, suggests to me the same hand as the Armada Badge, whilst the counter-seal, No. 114 on Wyon's plate, is equally reminiscent of Mr. Pierpont Morgan's Armada Jewel, especially in the elaboration of the dress and position of the shoulder. I leave this question in the hope that others, better qualified than myself to judge the matter, will compare the specimens and weigh the possibilities, remembering that if we quit the region of hypothesis for that of history,

¹ See *Notes and Queries*, Series III, vol. iv, p. 207.

² Drawing belonging to Mr. Peter Gellatly. The head in this sketch faces the spectator; the queen wears her ruff open and shows her neck and bust, whereas the ruff in the English great seal is closed round the throat, whilst the face is three-quarter to left as in the Armada Badge. On the counter-seal, though the head is still in the same position, the figure is in profile and assumes the pose of the Armada Jewel. The lettering on the Irish sketch is no longer legible, but that on the great seal of England is of the same rather peculiar style as we find it on both jewel and badge.

we know positively that Hilliard engraved the second great seal for Elizabeth, and that he designed it as early as 1584, when an order was directed to him and to Derick Anthony at the mint, "to emboss in lead, wax or other fit stuff the pattern for a new one (great seal) made upon parchment by you, Hildyard, and allowed by us."¹ As an artist he had constant opportunities of studying Queen Elizabeth, and his works as a miniaturist, portraying her, whether signed or unsigned, are almost unmistakable. He painted her in various ways—with flowing hair, as in the specimen at the Victoria and Albert Museum, or crowned, and with orb and sceptre as seen in the miniature at Welbeck²—there are specimens of his handiwork, at Windsor, concealed in a jewelled pendant so minute as to require a magnifying glass to enable one to judge of the likeness. There are dated portraits, such as that at the National Portrait Gallery, here illustrated, where we see her at the age



MINIATURE OF ELIZABETH, AGED 38.

NATIONAL PORTRAIT GALLERY.

Photograph by Emery Walker.

of thirty-eight; at times he represented her young and fair, and again in her bewigged and over-dressed later years. But I cannot stay to

¹ State Papers Domestic, 1584, p. 125, calendared by Green. Addenda, 1580 to 1625.

² Illustrated in *Burlington Magazine*, January, 1906; "English Miniature Painters," Plate I, 2.

describe the works of her portrait painters, though I must not omit a reference to the drawing at Windsor, executed by Isaac Oliver, as she appeared in all her splendour, in the magnificent pearl-embroidered dress in which she attended the thanksgiving service at St. Paul's, after disaster had befallen her enemies, for it served as the basis for a medallion, by Simon de Passe (*Med. Ill.*, vol. ii, p. 183, No. 187), which I am able to reproduce, and which gives a good idea of the plethora of ornamentation with which she loved to adorn herself.



MEDALLION OF QUEEN ELIZABETH BY SIMON DE PASSE.

William Rogers¹ and Crispin de Passe engraved Isaac Oliver's drawing, and it was also later reproduced by George Vertue as it is seen in our illustration. Vertue, like Rogers and Oliver, represented the queen turned to left, whereas the medallion by Simon, following the example of his father, Crispin, shows us the portrait looking towards our right. Crispin de Passe was never in England, and it seems doubtful whether Rogers copied Oliver and was in turn imitated by Crispin, or whether all three had access to some original now unknown. There are slight variations in all the prints, but Simon de Passe in his medallion certainly keeps more closely to his father's version than he does to the Windsor drawing.

The words of the inscription on the medallion of Elizabeth,

¹ *Early Engravings and Engravers of England*, Sidney Colvin, Plate IV.



VERTUE'S PRINT AFTER ISAAC OLIVER'S DRAWING OF QUEEN ELIZABETH.

QVI · LEO · DE · IVDA · EST · ET · FLOS · DE · JESSE · LEONES · PRO-
TEGAT · ET · FLORES · ELIZABETHA · TVOS; are said to have been
the lines of a Westminster schoolboy, the queen's arms being the
theme. Classical sentiments such as this appealed to Elizabeth, who
prided herself upon her learning no less than upon her appearance;
but the medallion, of course, was made after the death of the queen,
as were all the works of Simon de Passe.¹

When the Armada was about to invade England, in 1588, the
queen rode at the head of her troops, reviewing them at Tilbury, and
wearing a bright breastplate above her monstrous farthingale, her
head bare, her helmet borne by a page.² There is a print by Cecill of
Elizabeth riding in armour, with the Armada in the background, but
as it is allegorical in all its details, this engraving does not prove that
she had any special desire to be portrayed as an Amazon; we need,
therefore, not be surprised that the coins of the queen's later days
should tend rather to this magnificence than to the plainer bodices
occasionally described as "armour" which prevail, though not
exclusively, with mint-mark star 1562-1566 (see Kenyon, p. 126).
Whether Mr. Kenyon had any special reason for thinking the queen
wore armour in 1562-1566, I cannot discover, the silver coins of a
similar type not being usually so described, but I must admit that the



SIXPENCES OF ELIZABETH. MINT-MARK, STAR.

¹ Simon de Passe was born in 1595 (?) and died in Copenhagen in 1647. His earliest dated portrait is that of Henry, Prince of Wales, engraved in 1612, probably before his advent in this country. He is thought to have resided here only five or six years, and was employed by Nicholas Hilliard in 1617 to engrave counters representing the royal family (see *Med. Ill.*, i, p. 376). The majority of the larger plaques by Simon de Passe were designed between 1616 and 1620. A medallion of Charles, as Prince of Wales, bears the former date, and the others would appear to be fairly contemporaneous.

² Creighton's *Queen Elizabeth*, p. 157: "Mounted on a war-horse, Bellona-like, a general's truncheon in her hand, wearing a breastplate of burnished steel, and attended by a page who bore her helmet, she rode through the ranks."

sixpence shown above was so catalogued when I acquired it. There is in the British Museum a base metal pattern for a pound—sovereign with mint-mark star, of which I give an illustration, and which is undoubtedly in armour, the lion's head on the shoulder being clearly



PATTERN FOR SOVEREIGN OF ELIZABETH. MINT-MARK, STAR.

seen in the original. This is suggestive of the "armour" of Mr. Kenyon's gold coinage, if armour it be, being commemorative of some event between the years 1562 and 1566.

The introduction by Eloye Mestrell of the mill and screw in Elizabeth's time contributed largely to the perfection of her coins, but according to Vertue, jealousy of foreigners in general, and the dishonesty of this foreigner in particular, led to the execution of the innovator, and the hammered pieces, which had continued in use concurrently with the milled, for a time resumed their sway. Vertue¹ tells the story thus: "Though the Queen and her Council liked very well the way of making milled money within her Mint . . . when she knew . . . that the Monsieur who coined her money in the Mint, did also at the same time counterfeit and make milled money out of the Mint, all his friends could not save him . . . but according to the strict laws of this nation, he was condemned to death and suffered execution." Folkes,² however, states that the man executed

¹ Vertue's *Coins, Medals, etc.*, p. 24.

² Folkes's *English Gold and Silver Coins*, p. 55, perhaps taking his information, though not very accurately, from Shaw, who says, "1569—The 17th January, Philip Mestrell, a Frenchman and two Englishmen were drawn from Newgate to Tiborne and there hanged, the Frenchman quartered, who had coined gold counterfeit." P. 662 of ed. of 1615, the date should therefore read 1569-70.

was named Philip Mestrelle, and that he died on January 27th, 1569. The milled coins were struck from 1561 to 1572, and, with great rarity afterwards, till the reign of Charles II.

The coins of Elizabeth offer us endless variety, for she issued twenty denominations, the highest number ever reached by our currency. Apart from the fact of the general superiority of their material and execution, their most noticeable characteristic in many cases lies in the extreme elaboration of her dress. Holbein, in the reign of Henry VIII., had been noted for the fineness of his portrayal of gold and enamelled ornaments or jewels, which he painted with such precision that each gem is recognisable. Hilliard¹ also, in Elizabeth's time, is known to have introduced a real stone into a miniature, and the rubies in the beautiful little portrait of her by this artist in the Jones Bequest stand out in high relief, while in the Treatise on Limning before mentioned,² careful and special directions are given for the way in which the light on the ruby or diamond was to be produced. The coins of Henry and Edward, like their pictures, show the kings in jewelled collars or richly decorated armour, but Mary's coins were very simple, her principal embellishment in the way of ornament being merely a string of pearls. During the lifetime of her sister, Elizabeth thought it expedient to pretend a love of simplicity, but as years advanced, her passion for dress, no doubt inherited from her father, steadily increased, as may be seen on her coins, and she is described in her later years as absolutely loaded with jewels, amongst others with pear-shaped hanging pearls. These pearls are clearly seen in the crown and half-crown of 1601 before alluded to, and on many of her coins one can trace the "aglets" or ornamental gold and enamel loops which were so made that they could be sewn on to her different dresses as required.³ Indeed, as Walpole said about her, "A pale

¹ "English Miniature Painters," by Sir Richard Holmes, p. 233, *Burlington Magazine*, January, 1906.

² "Treatise on the Art of Limning," by Nicholas Hilliard, referred to on p. 130.

³ Strickland's *Lives of the Queens of England*, vol. iv, p. 262, and *Jewellery*, by H. Clifford-Smith, p. 269.

Roman nose, a head of hair loaded with crowns and powdered with diamonds, a vast ruff, a vaster farthingale and a bushel of pearls are the features by which everybody knows at once the pictures of Elizabeth."¹



MINIATURE OF ELIZABETH.

This queen was so fond of being portrayed, that it has been computed² that there are no fewer than eighty paintings and twenty-four cameos representing her, still in existence. But to this very vanity of the queen we owe the great diversity of a singularly interesting coinage.

Taken as a whole from the point of view of art, the coinage of the Tudor family may be said to be the most beautiful for which our country has been distinguished. In the realm of portraiture a new element was introduced into the interesting study of our currency and very ably sustained, and the dynasty which did perhaps the most to raise the prestige of England in the eyes of foreign powers, also deserves our gratitude in the persons of several of its members as the promoters of artistic numismatic portraiture.

If I have not fatigued my readers too much already with this subject, I may, perhaps, be permitted, at some future time, to turn to the unfortunate family of the Stuarts, for during the occupancy of the throne by these successors to the Tudors, possibly the highest

¹ Strickland, vol. iv, p. 186.

² *Connoisseur*, vol. v, p. 241; *The King's Gems*, by Mr. H. Clifford-Smith.

³ Ruding, vol. ii, p. 69.

point of artistic numismatic portraiture was reached by Briot, by Simon and the Roettiers.

I have now only to offer my sincere thanks to our editors, also to many members of this Society, especially to Mr. H. Earle Fox, Mr. L. Forrer and Dr. George Williamson, also to Mr. Herbert Grueber, to Mr. John Fortescue, to Mr. Ernest Law, to Mr. Lionel Cust, to Mr. St. John Hope and others who have given me their kind assistance, and to apologise for the length of this paper, humbly craving your indulgence as a very unlearned participator in your researches.

A REMARKABLE GOLD COIN OF HENRY VIII.

By L. A. LAWRENCE, F.R.S.A. (Ireland), *Director.*



NEW type of coin in the English series is of such rarity and interest nowadays that it is a source of much satisfaction to be privileged to publish such an one. The piece newly brought to light is a gold coin of Henry VIII., which may be described as follows : Obverse, a shield bearing the arms of England and France quarterly, above it a crown, all within two inner circles, the innermost linear, the outer slightly dotted, which are pierced above by the ball and cross surmounting the crown. The mint-mark is a rose. Legend : **RENRIC' 8 DEI GRA REX AGL' Z FRA'C**. The stops are crosses and there are two of these after each word of the legend except **RENRIC**, where there is only one, and **FRAC**, where there is no stop. There are marks of contraction after **RENRIC**, **GRA**, **AGL**, **FRAC** and also after the **A** of the last word. The numeral is of the Arabic form 8. Reverse, a full-blown single rose of five petals, surrounding it four fleurs de lis arranged crosswise ; between these a lion passant guardant, and the letter **R** crowned alternately, all within inner circles as on the obverse. The mint-mark is a rose and the legend **RENRIC' RVTILANS ROSA SINE SPINA**. One cross and a mark of contraction after **RENRIC**, no stop after **SPINA**, and two crosses after each other word. The weight of the coin is 51 grains.

Beyond the type of the reverse, which is quite new to us, notice must be taken of the alphabet used. The **R** is Gothic or Lombardic, the **R** is slightly ornamental, as are the **S**'s to a still slighter degree. All the other letters are Roman. There is a coin of this type pictured in Snelling in the plate of gold coins of Henry VII. and Henry VIII., No. 14. The same coin is given in Folkes's table of gold coins, Plate V, No. 9, which plate is incorporated in its entirety in Ruding,

of which Folkes's plates formed the *corpus*. The coin itself will be described a little further on, but here Snelling's footnote may be transcribed. In speaking of this coin he says :

"We constantly meet with this coin in all the placarts published in the Low Countries between anno 1546 and 1560, and yet we esteem it the rarest piece minted by this king, nor have we ever had the pleasure of seeing one of them ; it has a mint-mark peculiar to itself and not to be met with on any other money of this king ; whereas all the others have those common to this reign, as the bolt, rose, fleur-de-lis, wy, etc."

Snelling's work was published in 1763.

The coin figured in Ruding, vol. iii, gold coins Plate V, No. 9, is of precisely the same type as the coin shown at the meeting and now figured in the Plate, No. 1, but there is no mint-mark on the obverse, and that of the reverse is a lion. The legends are entirely in Gothic or Lombardic characters and the crosses used as stops vary in number and position from those on the coin figured. Moreover the numeral VIII appears after the king's name on the reverse. For the sake of completeness I have transcribed these legends.

Obverse.—**HENRIC' 8 * DEI * GRA * REX * ANGL * Z * FRAN ***

Reverse.—**HENRIC' * VIII' * RVTILITERS * ROST * SINE * SPIN.**

In the description of the plate in vol. ii, a note by the editor is given to the effect that no coin of this description is now known in any collection. No weight is given. The appearance of such a coin coupled with the engraving in Ruding, naturally gives ample reason for a thorough search into its existence and the causes thereof, and it is most satisfactory that the search was followed by the discovery in the indenture of an order for the coin to be made.

In Ruding, vol. i, p. 303, under date 1526, it is stated :

"A writ was issued to Thomas, cardinal-archbishop of York, legate de latere of the see apostolique, primate of England and Chancellor of the same, on the 24th of July, A.D. 1526,¹ commanding him to carry into effect the King's design of reducing his money to the standard of foreign coins, and to determine the rate, value, fineness, lay, standard, and print, as by him and the Council should be thought requisite. This was become necessary because the King had made

¹ Pat. 18, H. VIII. m 27, Dors.

requisition to several foreign princes for reformation of their coins, but without effect; and in fact they had become worse instead of better. The writ was to be sufficient warrant to the said cardinal. At the same time a warrant passed the great seal, to the master, warden, and other officers of the mint, which recited the above, and commanded them to carry into execution the determination of the cardinal and the Council, as well in fineness, value, and goodness, as in standard print and fashion. The warrant to be a sufficient authority and discharge, any act, statute, law, ordinance or other thing to the contrary notwithstanding.

“The reason for this alteration of the standard is fully stated in a proclamation of the 22nd of August following, from which it appears that the price of gold in Flanders and France was rated so high, that all the coins of the realm were transported thither by merchants, both denizens and aliens, on account of the great profit to be made thereby. That although the King had commanded the statutes in that case made to be put into execution, yet, nevertheless, the money was still secretly exported. And whereas the King had required, by his ambassadors, that his coins should not be permitted to be current there at so high a rate, yet on account of the scarcity of gold in those parts no remedy could be obtained. Therefore that the gold and coin might remain and be plenteously brought into the realm, it was necessary that all gold then current within the realm should be made of like price as it was valued at in foreign countries. It was accordingly ordained, that all persons should in future receive the crown of gold of the sun, and all other crowns of the same weight and fineness, for four shillings and sixpence sterling, being of full weight, etc. And whereas the crown of the sun was a strange coin, the King with the advice of his Council, thought fit that there should be a piece of gold of his own coin of like fineness, weight and goodness as the said crown of the sun, to be called the crown of the rose, and to be current in like manner for four shillings and sixpence; the single ducat large, of fine gold and due weight at four shillings and eightpence sterling, and the double ducat in proportion. And every person who should bring gold to the mint of the fineness of the sovereign, should receive for it at the rate of forty-four shillings the ounce. At which rate the following coins were to be current at these several values, viz.:

				<i>s.</i>	<i>d.</i>
The sovereign	...	...	...	22	0
Riall...	...	...	...	11	0
The noble	...	...	...	7	4
Forty-penny piece	...	...	...	3	8

"From the enforcing of these provisions it was supposed that the coins then within the realm would be kept there, and those which had been exported would be brought back.

"The silver coins were commanded to be received at the value which had been affixed to them in the proclamation of the 22nd of May, 1522.

"These provisions being found insufficient to check the exportation of the money (which, on the contrary, rather increased), it became necessary to put an additional value upon the coins then current, which was accordingly done by proclamation upon the 5th of November following, when they were commanded to be taken at the following rates :

				s.	d.
The sovereign	...	...	...	22	6
Royal	...	...	...	11	3
(Half and quarter in proportion.)					
The angel noble	...	...	...	7	6
Half-angel	...	...	...	3	9

"The crown of the sun of due weight and fineness, and all other crowns of the like weight and fineness not notably broken, were to continue to be current for four shillings and sixpence.

"And to the intent that there might be a sufficiency of coins for receipts and payments, it was ordained that besides the angel noble thus enhanced in value, there should be made another noble, to be called the George noble, of as fine gold as the angel, but wanting in weight tenpence sterling, to be current at six shillings and eightpence, the old value of the angel. Also a half George noble of proportionate value.

"And whereas the crowns of the sun, etc., not being aliquot parts of a pound, were inconvenient for calculation, it was ordained that another crown should be made, to be called the crown of the double rose ; so much in weight above the crown of the sun as to be current for five shillings ; and also its half for two shillings and sixpence.

"And to make the silver coins correspondent with the gold it was ordained that those already current should continue at the same rate ; that twenty groats of such coins should be current for the George noble, as they were heretofore for the angel, and fifteen for the crown of the double rose.

"Also that new coins of silver should be made, sterling like the others, but differing in weight, correspondent to the gold, so that every ounce troy of bullion should make eleven groats and one penny, of which the merchant should pay for coinage one penny, and so receive,

either at the mint or at the exchange (after it should be molten) clearly three shillings and eightpence in money current.

“ But if any person having white money of the former coins of the realm should think the same of more value than after the rate of the said new money which was intended to be struck, it should be lawful for him, at his pleasure and liberty, to bring it unto the King’s mint or exchange, where he should receive for every ounce of the same, groats or other money of the realm (after the same should have been molten), eleven groats over and above the odd penny deducted for the coinage thereof as aforesaid. And in like manner for all bullion of silver of the fineness of sterling ; and if it should be better than sterling, then to receive according to the fineness thereof. The carolus placks of the old coin of the Duke of Burgundy not being in fineness equal to sterling by twenty pence in the pound troy, it was ordained that they, not being clipped or notably broken, should still be current at fourpence sterling, but all persons who should think it more advantageous to convert them into new coin, might do so, and should receive for every pound troy, when molten, forty-three shillings and fourpence, deducting from the same for the coinage of every ounce troy one penny sterling.

“ And whereas heretofore every person who brought bullion to the King’s mint to be coined, paid two shillings and sixpence for the coinage of every pound tower weight ; which differed from the pound troy three-quarters of an ounce in the pound weight ; it was determined that the pound tower should be no more used, but that all gold and silver should be weighed by the pound troy, being of twelve ounces, and heavier than the pound tower by three-quarters of an ounce.

“ In consequence of this regulation there were to be paid for the coinage of every pound troy of fine gold two shillings and ninepence ; and for the coinage of every pound of gold into crowns of the double rose, etc., three shillings sterling.

“ And on account of the various weights and fineness of the ducats, it was ordained that they should not be current at any fixed value but as the payer and receiver should agree ; and in like manner all other foreign coins of gold and silver not mentioned above. But all persons who should think it advantageous to bring them to the mint to be coined or to receive other money for them, might do so, on paying for the coinage as above.”

The passages following in Ruding refer to the value of wares and the alteration in prices, due to the enhancing of the coinage. He then continues :

“ This is the first notice which is extant of an enhancement of the money in this reign, and it is, therefore, highly probable that Lowndes

was mistaken in the appropriation of the indenture which he has placed in the first year of this monarch, and that, for the following reasons, it ought to be placed in this his eighteenth year.

"In the first place, the George noble and the crown of the double rose were first ordained to be made by the proclamation just now recited, of the 5th of November in this year, as were also the silver coins of the weight specified by that indenture.

"Secondly, the pound troy was first introduced into the mint and the use of the pound tower abolished by the same proclamation.

"Thirdly, the Lord Mountjoy (and not Ralph Rowlet and Martin Bowes) was master of the mint in the first year of this reign and fourteen years afterward; and lastly, an indenture of that year with the Lord Mountjoy is still extant on the rolls."

"From these considerations I have removed this indenture to the present year. By its provisions the money of gold and silver was thus reduced in weight. A pound troy of gold of the old standard was to be coined into twenty-seven pounds by tale; that is, into twenty-four sovereigns, at twenty-two shillings and sixpence apiece, or forty-eight rials, at eleven shillings and threepence each; or seventy-two angels, at seven shillings and sixpence apiece, or eighty-one George nobles, at six shillings and eightpence each; or one hundred and forty-four half-angels, at three shillings and ninepence each; or one hundred and sixty and two forty-penny pieces, at three shillings and fourpence apiece.

"A pound weight troy of gold of the fineness of twenty-two carats only, was to be coined into one hundred crowns and a half of the double rose, or two hundred and one half-crowns, making, by tale, twenty-five pounds two shillings and sixpence.

"A pound weight troy of silver of the old sterling was coined into one hundred and thirty-five groats, or two hundred and seventy half-groats, or a proportional number of sterlings, halfpennies or farthings; and so every pound weight made forty-five shillings by tale."

One further quotation from Ruding, which is to be found on p. 306, under the year 1529:

"The earliest complaint of the depreciation of the money which I have met with occurs about this time.

"The author says,¹ 'But yet ye must note that xls. in those days (*i.e.*, temp. R. II.) was better than xls. is at the present day, which is now the xxi yere of Kynge Henry the VIII., for at those dayes v grotes made an ounce and now xi grotes maketh an ounce.'"

¹ *The Pastime of the People* (commonly called *Restall's Chronicle*), 1529. Reprinted 4to, London, 1811, p. 242.

The documents here quoted contain the solution of the problem to which this most interesting coin gives rise. There can be no doubt whatever that the coin under discussion is the crown of the rose which was ordered on August 22nd, and was current till November, and was then withdrawn or ceased to be coined owing to the fact that it was an awkward coin to calculate with. It was immediately replaced by the crown of the double rose more conveniently current for five shillings. The coin agrees in all particulars with what the crown of the rose should be in weight. In type also it most prominently exhibits a single rose. This is the more remarkable when it is considered that, both before and after, the double rose was constantly in use as an important part of the design on English coins. One notable example is to be found on the very rare rial of Henry VII., where the rose is of the same character as on the later crown of the double rose. The single rose, therefore, as shown on the crown of the rose, is there doubtless by intention. As the coin was meant to replace the French crown of the sun and to rank with it in standard and weight, it is interesting to note that the general arrangement of the reverse type retains a great likeness to the French coin. The design has, owing to the position of the four fleurs de lis, a close resemblance to the cross found on the French coin, and the symbols between the fleurs further carry out the likeness, as will be seen by a comparison of the two coins shown together in the Plate; No. 1 is the crown of the rose, No. 4 the crown of the sun.

This surprising piece must now be left individually in order to consider the whole coinage of which it is, perhaps, the most important member, viz., that which bears Roman letters. It may be as well to remark at once that this Roman letter coinage can be shown to have nothing whatever to do with the later base coinages also bearing Roman letters. The general style of the alphabets used, the stops and the whole workmanship support this. The later coins are in strict accord with characteristics found on the early and base coinages of Edward VI. If more is wanted to settle this point it is only necessary to remember that the first full-faced coinages of Henry VIII. all bear Gothic letters, and as these are of much better silver than the coins

bearing Roman letters with the full face, they must have precedence in point of time. Henry VIII.'s coins of the second issue bearing the legend in chiefly Roman letters are : in gold, the crown of the rose and the half George noble ; in silver, the groat and the half-groat. It is possible that there may be other denominations. The rose mint-mark appears to be the only one upon these pieces. They are all of the greatest rarity. Two varieties of the groat exist. One with Roman letters on both sides in which case the ends of the reverse cross are filled in with florets. Of this I only know of three examples (two in the National Collection and one in Mr. Roth's cabinet). Plate, No. 7. The second variety is probably a mule and bears the Roman letters on the obverse only. The reverse is the ordinary one of the second coinage and has Gothic letters. Plate, No. 10. Four half-groats are known, two of which are in Mr. Roth's collection. One of these, Plate, No. 13, is a mule, as it corresponds in all particulars with the second variety of the groat. The only remaining coin is the still unique half George noble, of which an illustration is given in the Plate, No. 3. The legends are :

Obverse.—**HENRIC' x D' x G' x R' x AGL' Z x FRA x DNS' x FYBE.**

Reverse.—**TALI x DICA' x SIG' x MES' x FLVCTVARI x NEQT.**

Crosses are used as stops.

The George noble in the collection at the Royal Mint may, in a way, be a member of this group, as some of the letters nearly approach the Roman type. It has also the rose mint-mark. My friend Mr. Hocking kindly allowed me to have a cast of the coin for representation here. Plate, No. 2.

The crown of the double rose mentioned in the Montagu catalogue, second portion of Lot 732, is there stated to have borne Roman letters on the reverse. It had also a rose mint-mark.

Another coin of the same description in the National Collection is figured in the Plate, No. 5.

Lastly, the half-crown closely corresponding to the crown is figured as No. 6. It will be noticed that nearly all the letters are of the Roman form on both sides.

Some remarks about the whole of the second coinage might

suitably conclude this paper, as the present views about it to my mind seem to stand in need of correction. According to Ruding the coinage was the result of the documents quoted before as being made in 1526, Henry's eighteenth year. If that be the case the first coinage endured for eighteen years. Now the first coinage simply continued Henry VII.'s latest issue. The only alteration that was made was the addition to the die of an extra I after the VII and a change in the mint-mark. The groats bear the pheon mark also present on the father's coin. This was replaced by the portcullis crowned and again by the castle. The London half-groats, according to Hawkins, bear the portcullis mint-mark only, so that they correspond only with the groats bearing the same mark. The London pence of the first coinage are not with certainty to be distinguished from those of Henry VII. except by the mint-mark, as no numerals are placed after the king's name. The case is the same with the halfpence, but as the type reverted to the old full face of a conventional king nothing can be gleaned from the matter of portraiture.

The indenture weight of the penny of the first coinage was twelve grains, the other pieces in proportion.

The second coinage consisted of groats, half-groats, pence, half-pence and farthings in silver and the various gold coins mentioned before.

The groats and half-groats had a new portrait of the king. There are more mint-marks to be found on the second coinage of groats than on the first, thus the rose, lis, pheon, arrow, and sun and cloud, appear as distinctive marks. The lis mint-mark is found on coins bearing on one side or the other the pheon or rose. Thus, coins bearing the marks obverse rose, reverse lis, or *vice versâ*, are known. Likewise coins bearing the lis and pheon mint-marks in the same way also exist. It seems clear, therefore, that the lis mark came into use after the rose and before the pheon. The rose and pheon seem never to appear on the same coin. The sequence of the three marks must therefore be rose, lis, pheon, or the reverse. The coins themselves clearly show which way these marks were issued, as there is a pheon marked groat, on which the legend is **ÆNNRIC' 8' × D' × G' × TGL' × RRT' × Z' × RIB' × REX.**

The corresponding half-groat with the Arabic 8 and the title of King of Ireland is also known.

Henry did not become King of Ireland until 1542, so that clearly this pheon marked piece must be the latest of the second coinage. The rose, therefore, is the earliest, and this is again borne out by the gold coins, as both the crown of the rose and the George noble and half George noble bear the rose mint-mark. The only unsatisfactory feature in this classification is the position which should be assigned to the coins bearing the rare sun and cloud mint-mark and the arrow. There is nothing except the mint-mark to distinguish them from coins bearing the other marks, no alteration of legends or Roman letters or ornaments. It seems clear that the rose is the first mark and the pheon the last, the relationship moreover of the rose and lis on the one hand, and the lis and pheon on the other are so intimate that they must be placed in apposition. It is just possible, though not probable, that the sun and cloud coins were being issued concurrently with the other coins from the London Mint. A supposition with perhaps more probability, though quite without proof, is that the coins marked with the sun and cloud and arrow were issued from a provincial mint, possibly Southwark or Bristol.



1



3



2



4



5



7



6



9



8



10



11



13



12



THE CROWN OF THE ROSE AND CONTEMPORARY COINS, ILLUSTRATING
ITS ISSUE AND WITHDRAWAL.

DESCRIPTION OF THE PLATE.

1. The crown of the rose.
2. The George noble.
3. The half George noble.
4. The French crown of the sun.
5. The crown of the double rose.
6. Half-crown of the double rose.
7. Groat, obverse king's profile bust slightly varied from the ordinary second coinage bust, one inner circle of dots. Mint-mark a rose.
 Legend **RENRIC' * VIII' * DI' * GRA' * REX * AGL' * Z : FRA.**
 Reverse, shield of arms upon a cross fleury, the ends of the Cross filled in with florets, two inner circles, the outer one of dots, the inner linear. Mint-mark a rose, legend **POSVI * DEV' * ADITOR * E' * MEV'** There is a cross after and above **R** of **ADIVTORE** which seems to be an ornament rather than an intentional stop, the **R** and **E** being divided by the end of the cross, weight 37 grains. Mr. Roth's Cabinet.
8. Groat precisely similar, British Museum.
9. Groat of the same style, but the alphabet is Gothic and the obverse legend ends **FRATQ.**
10. Groat of the same style of work and the same mint-mark.
 Legend **RENRIC' * VIII' * DI' * GRA' * REX * AGL' * Z : FR.**
 Reverse, the ordinary one of the second coinage with Gothic letters, mint-mark a rose, weight 34½ grains.
11. Half-groat, the same types and workmanship as the groats, mint-mark a rose, **RENRIC' * VIII' * DI' * G' * R' * AGL' * Z * FRA'** Reverse no linear inner circle, mint-mark a rose, **POSVI DEV' * ADIVTOB' * MEV.**
12. Another coin of precisely the same description, but the obverse is from a different die, weight 20 grains.
13. A third half-groat, which has an ordinary reverse with Gothic letters.

AN ELIZABETHAN COINER.¹

BY THE REV. J. CHARLES COX, LL.D., F.S.A.

DUNCANNON FORT, on the river Barrow in the south of Ireland, which for a long period was of considerable service in protecting the harbour of Waterford, when it ranked high among the general defences of the kingdom, has an interesting and diversified history. The first castle of any importance that occupied this site was probably—

“built to the order of the great Earl of Shrewsbury shortly after his grant in 1422 for the better protection of the border, though it is highly improbable that, as Seneschal of Ireland, he ever lived there.”

This castle and its surroundings were granted on lease by Queen Elizabeth to Sir Nicholas White, Master of the Rolls.

In 1587, when the rumours of a Spanish invasion were crystallising, the admirable defensive position of the castellated residence of Sir Nicholas White suggested the strengthening of the site, for it commanded the entrance to the forts of Waterford and Ross, through which there was access to twelve towns from the sea. The result was that the neck of land on which the old castle stood was most strongly fortified in accordance with the best engineering knowledge of the times. There are various letters relative to the erection of Duncannon Fort, as it was henceforth termed, among the Irish State papers of the year 1587. A plan (undated, but doubtless contemporary with its erection) among the Carew papers at Lambeth Palace, shows at a glance that it was constructed on most formidable lines, and occupied a position marked out by nature as a stronghold.²

¹ After I had incidentally come across the papers relative to this case at the Public Record Office, and had made various transcripts, I learned that much of this material had been recently used in Hore's *History of Wexford*, vol. iv.

² Reproduced in Hore's *History of Wexford*.

Into the highly interesting subsequent history of this fort, its gradual strengthening and arming with ordnance from 1588 to the end of Elizabeth's reign, and its eventual reduction by the beginning of the eighteenth century to little more than a convenient storehouse for arms and a centre for the assembling and training of the Waterford Artillery Militia, it would be foreign to our purpose here to enter. Our present concern is simply with the strange use that was made of this fort by one of its commandants at the close of Elizabeth's reign, an episode which seems to be pertinent to the objects of this Society.

In June, 1601, Sir John Brockett was appointed governor or constable of the fort. On the 23rd of that month he wrote from Dublin to Sir Robert Cecil, of the Privy Council :—

“ Ryght Honble, after extreme and hard labour I have gotten the command of H.M.'s forte of Duncannon in Wexford, where I have with all diligenst inquired bothe the news of Spayne and other Countreys, as also serched the estate of all occurrentes as hath passed in or out of this harbor sence I have byne here, always respectinge the nott greving the subject.”

He further stated that he was shortly returning to his charge, that the new money went current, but that £5,000 had been paid in silver to Frenchmen for corn and had been taken out of the country.

In another letter to Cecil, under date July 25th, Sir John, writing from Duncannon Fort, gave an account of the fear of another Spanish invasion, and promised a plan to scale, then in course of preparation, of the fort, together with every neck of the harbour and every village within eight or ten miles. In conclusion he stated that in Waterford and the immediate surroundings there was more traffic and change of money than in all Ireland save Dublin, and that in spite of the recent proclamation forbidding the exportation of silver coin after the 10th of July, yet all traders continued to sell their wares for silver, and no man troubled to inquire if the seller was a foreigner. Unless some stricter course was adopted, it would not be long before there was no silver coinage left, for “the frenche men and other nations do carry itt a waye for ther wines and other martchandys.”

An army list of this date shows that Sir John Brockett, as Constable of Duncannon, was in receipt of 3s. 4d. a day ; and he had

under him a lieutenant, at 18*d.*, a cannonier at 12*d.*, and thirty warders at 6*d.* a day each.

On August 2nd, 1602, Sir John Brockett wrote from Duncannon to Cecil giving notice of the reported preparation of a Spanish fleet to effect a landing in Ireland, and complaining of the "exceeding defects and wants of this Forte." In January, 1602-3, Sir John Brockett left for England, entrusting the command of the fort during his absence to his son, Lieutenant John Brockett; but he never returned, for on reaching London he was arrested and sent to the Tower under suspicion of treasonable actions, but more especially on a charge of coining.

This was by no means the first effort at illicit coining in Ireland at this period. A debased silver coinage was struck in the spring of 1601 for exclusive use in Ireland, as is clearly set forth in the Carew Papers of Lambeth Library. In a letter of the Queen to Sir George Carew, in May of that year, it is stated:—

"that the wisdom of all our progenitors for the most part did maintain a difference between the coins of both realms (that in Ireland being ever inferior in goodness to that of this realm), howsoever, by error of late crept in, it hath been otherwise tolerated, to the infinite loss of this Kingdom, our moneys being out of that realm transported into foreign countries for lack of merchandise; we have thought it reason to revive the ancient course of our progenitors in that matter of moneys, and have caused a coin proper for Ireland to be stamped here of such a standard as we find to have been in use for the same, and do now send a great quantity thither for the payment of our army and for other uses, and the same do authorise by our proclamation, and deny all other moneys."

The proclamation states that this money, after the standard of the Queen's father, brother and sister, was coined—

"in several pieces of shillings, sixpence, and pieces of three pence, stamped with her Highness' arms crowned, and inscription of her usual style on one side, and on the other with an Harp crowned, being the arms of this her kingdom of Ireland, with the inscription *Posui Deum adiutorem meum*; and also certain pieces of small moneys of mere copper, of pence, halfpence and farthings for the use of the poorer sort."

Immediately after this new coin became current, which was probably far easier to imitate than genuine silver, "one John Nott and Robert Prickett did fall a counterfeiting the like," as Sir George Carew stated to the Privy Council in a letter of September 12th, 1601, "and did put away and utter some five or six pounds thereof." These delinquents were apprehended, found guilty by a jury, and condemned to die. A third coiner, called William Kirkham, one of the horsemen of Sir Anthony Cook's troop, whose stamps and instruments were secured by Carew, managed to escape to England. Nott, in his examination, said that the stamp used by him and his confederates for coining was commonly of chalk, but they had one stamp of iron wherewith they coined dollars in France. The metal used was a mixture of copper, tin and "a black kind of metal called tinglass," wherewith they made a very fair counterfeiture, in appearance good silver, but there was no silver at all in the composition.

The remarkable point about Sir John Brockett's counterfeiting was the distinguished position held by the delinquent. The informer as to the Duncannon coining was one Richard Meillin, or Milne, a Scotchman, of whom Sir John had made a confidant and to a certain extent an accomplice. In a communication made to the Lord Deputy of Ireland in March, 1602-3, Sir Nicholas Walsh, Mayor of Waterford, and three other justices of the peace for the counties of Wexford and Waterford, gave details as to the information that reached them, through Milne and others, about

"the great treason committed in the fort of Doncanan of coyning of monie in the likenes as well of Spaynishe as of the current coyne of this land."

At nightfall on Ash Wednesday, a search party of justices and others proceeded to the fort,

"to search for toles and other instruments fitt for coyning, who brought hither diverse for that purpose, the substance whereof were found in Sir John Brockett's desk, thinventorie whereof we send herewith, whereby and by the examinacons it is apparent that there was som quantitie both of Spaynishe and of our mixt moneys counterfeited, and in one of the Crusibles found there are two coyned peces in the bignes of our three pence found fastned to the litle panne which we comaunded should not be discovered."

The letter further stated that Thomas Tricklye, "the chiefe contriver of this wicked practise," had gone over into England with Sir John Brockett, to the intent, as Milne asserted, of obtaining stamps and other necessities for a continuance of the work. John Brockett, jun., the lieutenant of the fort, was at that time committed to Waterford gaol, together with Thomas the younger son of Sir John. Milne, the informer, was also imprisoned, but "with some better libertie least he should be discomforted in his information." The tools and other instruments were left in the mayor's keeping.

The inventory of the contents of Sir John Brockett's desk, opened on March 9th, 1602, is :—

"One Tinckers mowld.

Three peeces of brasse and a pese of Ordinance detayned from Sir Georg Bowchier Kt., whereof one pece was wrought and beaten owt.

Five crusabells whereof one groat, and another with newe pennee not fully wrought sticking to the bottom.

Two boxes contayning quicksilver.

A payre of Tinckers pynsors.

A small instrument to sawe.

A file.

A goldsmithes hammer.

A pax contayning bone ashes with two small peeces melted.

A goldsmithes brushe and a haresfote.

A gilding pynn.

A scrach brush.

Six stones of rock allome.

A pax contayning Sandyver (*Sain de Vare*) and saltpeter.

A small bagg contayning refined clay.

A tuch stone, a silver spone and a sledge.

There is left in the forte a brasse pott full of charcoale with a proporcon of charcoale in the chymney, and an old copp kettell."

The depositions of Milne, the gunner, a yeoman, a soldier, and the two sons of Sir John Brockett, and of George Milly, a Dublin goldsmith, are set forth at length. The evidence is fairly conclusive as to the guilt of Sir John and of the elaborate precautions that he took for concealing the work when it was resumed, as he intended, on a larger

scale. He had a shed built, close to the deep water, where future operations were to be carried on, intending that the tools should be thrown into the sea on any sudden emergency.

It has not hitherto been found possible to trace the final issue of the case, but it does not appear that the ex-Governor of Duncannon Fort suffered capital punishment. It may be of some interest to set forth Sir John's own confession in full¹; it is impossible not to have a certain amount of admiration for the delinquent's boldness in putting forth the cynical plea that he thought it legitimate to prey upon the coinage of a foreign power at enmity with his own country

"The examination of Sr John Brockett knight taken this fift of Aprill, by Commissioners at the Gate house.²

"He confesseth that he had conference with George Mille of Dublyn goldsmith towchinge the coyninge of forren Coyne and that this examine tould the said Mylle that his purpose was not to utter any but only in fforren nations, and that this examine was desirous to be taught by the said goldsmith to cast mettals in a mould and to see the form of moulding tools. And that the Gouldsmith tould him that the same must be cast with sand and at this examine's intreatie tould him that the best sand was for that purpose at Cather Loughe where this examine accordinglie caused a pursefull to be taken uppe. And by way of question demanded whether it was not good after he cam out of England to take an Iland not far from Duncannon where coyning might be without perill. And sayeth that the said Mylle tould him that he was cooning in alchimy and could make white metal for that purpose, but he would not discover the secret to him, and thereupon this examine by way of discourse said that he would trie some in England for obteyning of white mettall for that purpose and confesseth that he had twoo or three Crusibles of the said Myll the Goldsmith and that while he lay at Mylle's house, which was about 12 days, Myll at his request did melt down three or foure copper pence with an Englishe two pence of which he had of this examine and that when it was melted it looked blacke and after he putt it into licour it cam again to the color which this examine did because he desired to see the manner of melting and all this was done somewhat like Christmas last and confesseth that after John Rowe one of this

¹ *State Papers, Ireland*, ccxv, 9.

² The Gate house was a Westminster prison, which was celebrated as a place of confinement for Roman Catholic priests during the Elizabethan and Stuart persecutions.

examinee's servants had offered to utter a counterfeit Spanish peece in Waterford about 7 weeks after Christmas and was apprehended thereupon Rowe sent this examinee word that he had it of . . . Metting this examinee's servant who upon examination confessed to this examinee as he was going to Derdyn that he had counterfytte the same and 2 or 3 more and that Tregle taught him to do the same . . . this examinee caried Mallyn to the maior of Waterford and discovered this matter to him whereupon this examinee bayled Mellin for that Mellyn had divers goods and money of his in his custody and Rowe was discharged as guiltless and caried Mellyn to the castle of Duncannon and there kept him and Tregle in Irons in safe custody and left Mellyn there and brought Tregle over with him and confesseth that he had a mould of iron of Tregle a litle after Christmas last and that he had the tooles mentioned in the Inventorie subscribed by Nicholas Welshe and others in Ireland in his desk in the fort of Duncannon that the cause why the newe pence not fully wrought did stick to the bottom of the crusbles was for that this examinee did endeavor to melt the same but could not find the cause why he indeavored to melt the same was to learne to melt brasse for his mill. And confesseth that Tregle taught Richard Melyn to come and all the cunninge Melin had therein he learned it of Tregle as Melyn tould this examinee. And denieth that he did ever himself counterfeit either any currant money of this realm or of any forren nation And confesseth that the said Melyn did counterfeit the said Spanish coin in the fort of Duncannon, but in what part of it he knoweth not and being demanded whether it was not done by his privitie answers that it was not done by his privitie And he described the manner howe any coine may be counterfeetted in a mould eyther of wood iron or clay the same being cutt square in the middest and filled with sand chawke or ashes and any coin being layd in the hollowe upon the sand and another like mould so squared and filled as aforesaid conjoined there do result between them the coin being taken out a perfect mould to press any coine whatsoever And Tregle and Melyn both confessed to this examinee that Tregle taught Melyn in the said fort of Duncannon to coyne which confession was a litle before Christmas last And that as soon as he and Tregle landed at Crocke and Pill near Bristowe Tregle departed the same night and said he would goe into the west countre where he is nowe he knoweth not And being demanded whether he ever knewe of any English money to be coyned utterly denieth that ever he caused or knew of any English money to be coyned And being demanded whether he knew of any that knew how to coyne or did practise the same sayeth that he knoweth of no other

than Tregle and Mellyn and Tregle tould him that he had known divers Englishmen both in England and the Low Countries could do it but it is long since. But upon better remembrance he sayeth that Roger Marshall a soldier remains about this towne as the said George Milles the goldsmith tould this examine could coyne and taught one Coxe that skill who was convented for the said offence in Ireland.

John Brokett.

Exam^d. before us,

Roger Wilbraham and Edd Coke."

THE ENGLISH SILVER COINS OF JAMES I.

BY LIEUT-COLONEL H. W. MORRIESON, R.A., *Librarian.*



ON 24th March, 1602/3, James VI. of Scotland was proclaimed King of England, Scotland, France, and Ireland in succession to his cousin Elizabeth. This succession of the House of Stuart to the throne of England produced political changes which found their echoes on the coins. The principal alteration that strikes the student is the difference in the Royal coat-of-arms. From 1338, when Edward III. claimed the throne of France, to this year, except for the few years during which Mary I. was married, the arms of England were, quarterly, the lilies of France in the 1st and 4th quarters, and the lions of England in the 2nd and 3rd; the lion rampant of Scotland had now to be borne, and the opportunity was also taken to introduce the harp of Ireland; so that the new coat was arranged thus: the arms of France and England, quarterly, in the 1st and 4th quarters; those of Scotland in the 2nd; and those of Ireland in the 3rd.

On 20th October, 1604, an alteration was made in his title, James having preferred to call himself King of Great Britain, France, and Ireland, instead of England, Scotland, etc., and the necessary indentures for this alteration to appear on the coins were entered into during the following month. His coins were of the same denominations, weight $7\frac{2}{3}$ grains to the penny, and fineness 11 oz. 2 dwts. of silver to 18 dwts. of alloy, as those of his predecessor; and the silver pieces were crowns, half-crowns, shillings, sixpences, half-groats, pennies, and halfpennies. London was the only mint. The King died 27th March, 1625.

During the reign of James, as in that of Elizabeth, there was a series of mint marks, but, unlike hers, the mint marks were not all

different, for the thistle and lis appeared three times and the rose and trefoil twice. It has been a puzzle to numismatologists to distinguish the coins with the QVAE DEVS legend on the reverse bearing these mint marks from one another, and few have attempted a solution. Hawkins makes an attempt, but in the end gives it up, and the late Mr. Montagu in *Numismatic Chronicle*, 3rd Series, X, p. 273, answers it only so far as the crowns are concerned. The object of this paper is to solve it for the other denominations.

The coinage of James I. divides itself into three periods, viz. : The first from the year 1603 to 1604, the second from 1604 to 1619, and the third from 1619 to his death in 1625. The first period includes what is generally known as his first coinage, *i.e.*, those pieces having the title of King of England, Scotland, etc., as the obverse legend and EXVRGAT, etc., on the reverse.

The coins of the second period, with the exception of the three lowest denominations, which are of entirely different design, differ from those of the first in having the title of King of Great Britain in the obverse legend and QUAE DEVS, etc., in the reverse ; otherwise their appearance is much the same. They, like the first, have semicolons, the comma being uppermost for the mark of abbreviation, pellets between the words, and, as a rule, one each side of the mint mark. The mint marks which sometimes omit them are the escallop, coronet, key, and bell, from the reason, perhaps, that these marks are somewhat larger than the others.

The third period begins directly after the appointment of William Holle as chief engraver to the Mint, and includes the time when a very large amount of money was coined. It is in this period that the puzzle occurs. The coins have the same design as those of the second, but are coarser in appearance, showing the hand of another engraver. The bust on the shillings and sixpences is slightly different, and as the latter are also dated, they can easily be distinguished ; so it is in the other denominations that the difficulty arises. On studying the coins both of gold and of silver, we find several peculiarities : the mark of abbreviation is now a colon instead of a semicolon, and there is no pellet after a complete word. There are, however, a few exceptions



THE ENGLISH SILVER COINS OF JAMES I. ¹⁰  PI. I.

which will be mentioned. The spacing of the words of the legends varies in the different dies, thus often crowding out one or both pellets by the mint mark. There are also more differences in the abbreviation of the words in the obverse legend. On the shield on the reverse the lion of Scotland is not nearly such a fine-looking animal as before, and the harp of Ireland is no longer plain but ornamented with a bird's head ; some coins continued, however, to have a plain harp.

The exceptions in the gold coins are that on the angel there are pellets between the words in the legend on the reverse, and a half laurel, which has the marks of abbreviation on the reverse semi-colons. (Montagu Sale Catalogue, 3rd Portion, Lot 170.) I will now take each denomination in detail.

CROWNS.

First Period.—Obverse : The king on horseback to right, sword in right hand, the housings decorated with a crowned rose, line under horse, legend, IACOBVS · D · G · ANG · SCO · FRAN · ET · HIB · REX. Reverse : square garnished shield, plain harp, legend EXVRGAT · DEVS · DISSIPENTVR · INIMICI. There is a beaded inner circle on both sides, and the mint mark has a pellet each side of it. The mint marks are thistle and lis. (Plate I, 1.)

Second Period.—The crowns of the second period are the same as those of the first, except that the legend on the obverse is IACOBVS · D · G · MAG · BRIT · FRAN · ET · HIB · REX, and on the reverse QUAE · DEVS · CONIVNXIT · NEMO · SEPARET. A pellet each side of the mint mark as on the first. The mint marks are thistle, lis (Plate I, 2), rose (Plate I, 3), escallop, and grapes. As regards the thistle mint mark, the late Mr. H. Montagu in his article in *Numismatic Chronicle*, 3rd Series, X, p. 273, states that he had a specimen, which I presume was Lot 191 in his Sale Catalogue, 3rd Portion, but I must say that I am very doubtful if any coins of this second period were struck with this mint mark. Mr. Kenyon mentions in *Numismatic Chronicle*, 4th Series, V, p. 106, that there was a QUÆ DEVS sixpence, 1604, with this mark in the Oswestry find. I have seen neither of these

coins and, until I do, I shall continue to be sceptical. There seems to me to be no reason why the authorities should have coined a few pieces of a new type with a mint mark which had been discarded for some months.

Third Period.—These crowns vary from those of the preceding period in having, as the late Mr. Montagu points out in his paper already referred to, a smaller rose and crown on the housings; under the horse on some of them is grass conventionally treated instead of a line, and the Scotch lion is smaller. The legends have a different punctuation, viz., IACOBVS D: G: MAG: BRI: instead of BRI FRAN: ET HIB: REX, and on the reverse no pellets between the words. We generally find either one or both pellets beside the mint mark missing.

To this period belong those crowns having on the reverse a smaller shield, the harp on which is bird-headed, and a large plume above. This plume was to denote that these coins had been struck from silver from the mines of Wales. Of both kinds the mint marks are thistle, lis (Plate I, 4), and trefoil (Plate I, 5).

HALF-CROWNS.

First Period.—These coins are exactly the same as the crowns, only of a smaller size. Mint marks, thistle (Plate I, 6) and lis.

Second Period.—As the crowns of the second period agree in every detail, with the exception of the words of the legends, with those of the first, it might be expected that the half-crowns would be found to correspond; there are, however, none that do. The nearest is one with mint mark rose (Plate I, 7), which agrees as far as the obverse goes, but the reverse has all the peculiarities of the third, so I consider it was coined in that period, viz., 1620-21. The shillings and sixpences of the second period, with the exception of busts and legends, also agree with those of the first in matters of small detail; there is all the more reason therefore that the half-crowns should do so. The half-crowns of Elizabeth are scarcer than the crowns, and of the first period of James I. they are extremely rare, only a few being known. The crowns of the second period are even rarer than

those of the first, so it is a fair deduction to make that the half-crowns would be rarer still. Snelling mentions a specimen with the escallop mint mark, and should that ever appear it would settle the matter, but until that evidence is forthcoming I shall consider that none were coined.

Third Period.—All the half-crowns, excluding the obverse of that referred to above with the rose mint mark, agree with the crowns except that all have the bird-headed harp. The legends read IACOBVS D : G : MAG : BRI : (or BR :) FRAN : (or FRA : or FR :) ET HIB : (or HI :) REX. Either one or both of the pellets by the mint mark get crowded out. The Scotch lion is also smaller, this probably arising from the coins being smaller, but there appears to be no difference in the crowned rose on the housings. On some of them is the conventional grass under the horse.

The mint marks are rose, thistle (Plate I, 8), lis, and trefoil. Some bearing the last three marks (Plate I, 9) have the plume over the shield on the reverse and one with the trefoil (Plate I, 10) has a pellet after JACOBVS and ET.

SHILLINGS.

The following is a general description of the shilling of this reign. Obverse : bust of the king in armour to right, crowned, XII behind the head. Reverse : a square plain shield. A beaded inner circle on both sides. The legends vary according to the periods.

First Period.—There are two busts belonging to this period.

First Bust, 1603.—The armour is figured, hair short, beard cut square and the countenance has a strained look ; legend, obverse, IACOBVS : D : G : ANG : SCO : FRA : ET . HIB : REX. and on reverse, EXVRGAT . DEVS . DISSIPENTVR . INIMICI ; pellet each side of the mint mark. This has only one mint mark, thistle. (Plate II, 11.)

Second Bust, 1603-1604.—The king is more portly in form, back upright, beard pointed and resting on the chest, and his countenance is placid. The legends, etc., are the same as the first. The mint marks are thistle (Plate II, 12) and lis.

Second Period.—During this time three busts appeared.

Third Bust, 1604–1605.—The armour is still figured, beard cut square, and stands out from the chin, while the crown is tilted a little back on the head; legends, obverse, IACOBVS · D · G · MAG · BRIT · FRA · ET · HIB · REX · reverse: QVAE · DEVS · CONIVNXIT · NEMO · SEPARET. Pellet each side of mint mark.

The mint marks are lis (Plate II, 13) and rose.

Fourth Bust, 1605–1608.—The armour is plain, hair longer, parted down the back and brushed forward. The legends are the same as on the coins having the third bust, only sometimes HI · for HIB ·; there is generally a pellet each side of the mint mark.

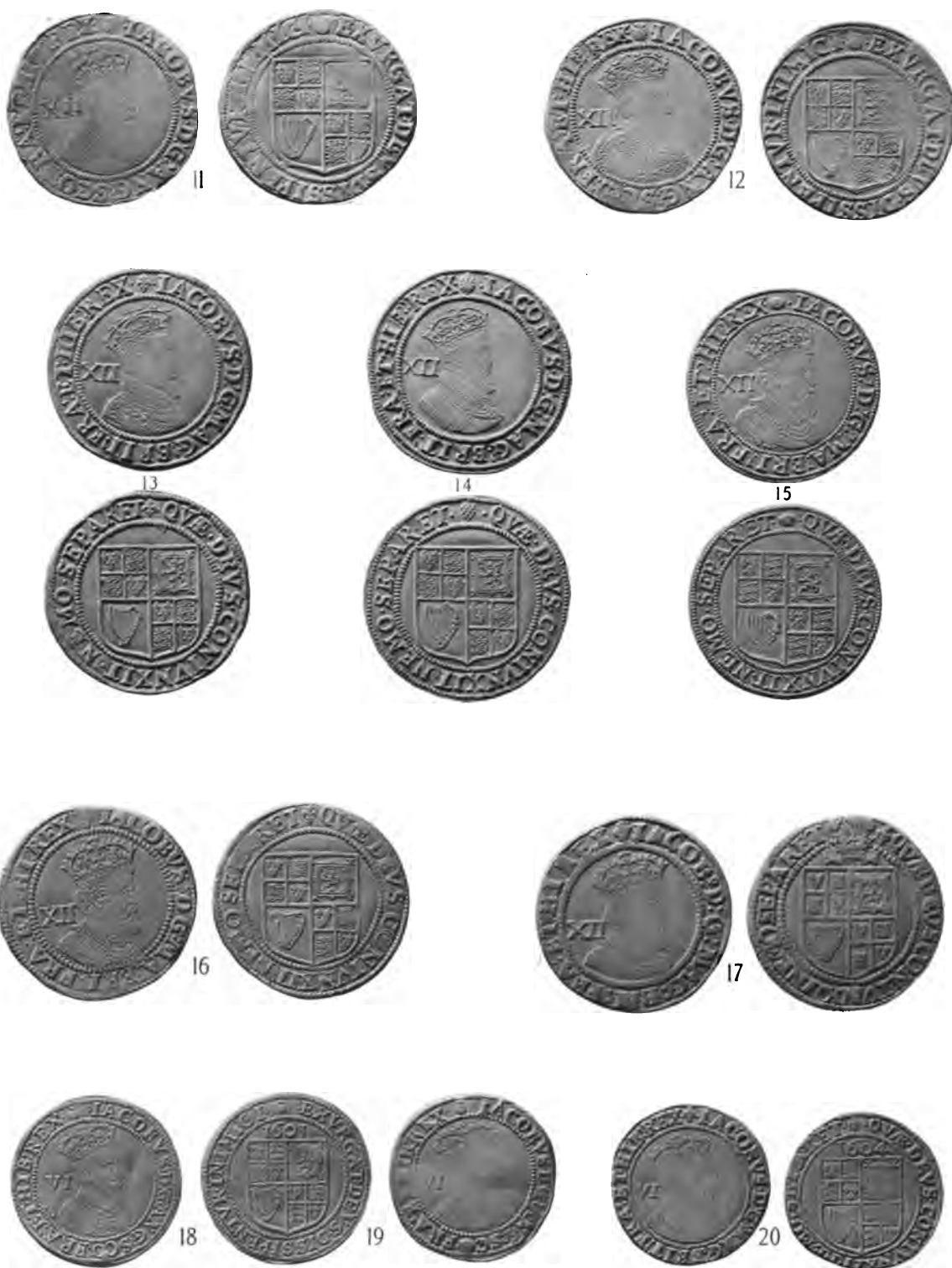
The mint marks are rose, escallop, HIB · HI ·; grapes (Plate II, 14), HIB · HI · and coronet, HIB · HI ·. There is one with the escallop which has the mint mark on the obverse larger than on the reverse.

Fifth Bust, 1608–1619.—The armour is plain, hair longer and brushed back. Legends same as before, but occasionally MA · for MAG · and BRI · for BRIT. There is generally a pellet each side of the mint mark. The bust on some of the shillings of the key and bell marks appears to be shorter than on the others.

The mint marks are coronet, HIB · HI · key, HIB · HI · bell over key, HIB · bell, HIB · HI · mullet, HI · tower, HI · trefoil, BRI · HI · cinquefoil, MA · BRI · HI · and ton (Plate II, 15), MA · BRI · HI ·.

Third Period.—There is only one bust during this time.

Sixth Bust, 1619–1624.—The armour is plain, hair still longer and curling over the front of the crown, beard shorter and stands out more from the chin. In the shield on the reverse the harp is bird-headed, but Hawkins mentions one mint mark, rose, with a plain harp; legends, IACOBVS (or IACOB ·) MAG · (or MA ·) FRA · (or FR ·) ET HIB · (or HI ·) REX; the colon after HI is sometimes omitted, and on the reverse there are no pellets between the words. The mark of contraction after IACOB · which occurs only with the mint mark lis, is peculiar, being a semicolon with the comma which is uppermost, like the figure 9. This peculiar comma is found after certain words in the legends on the profile coins of Henry VII. and VIII., and was, I understand, the recognized mark of abbreviation for VS. (Plate II, 17).



THE ENGLISH SILVER COINS OF JAMES I.

PI. II.

The mint marks are rose, thistle, lis (Plate II, 16), and trefoil. Some bearing the last three (Plate II, 17) have the plume over the shield.

SIXPENCES.

The sixpences correspond exactly with the shillings, except that they have VI instead of XII behind the head, and have the date over the shield on the reverse. The introduction of the fifth bust in 1608 was not extended to the sixpences, which continued to be issued to the end of the period with the fourth bust.

First Period.

First Bust.—Mint mark, thistle 1603. (Plate II, 18.)

Second Bust.—Mint marks, thistle 1603 (Plate II, 19), 1604; lis 1604.

Second Period.

Third Bust.—Mint marks: lis 1604 (Plate II, 20), 1605; rose 1605. I must omit the QVÆ DEVS sixpence, mint mark thistle 1604, as not having seen it, I am unable to state what bust it has, though presumably it would have this one.

Fourth Bust.—Mint marks: rose 1605, 1606; escallop 1606, 1607; grapes 1607; coronet 1607, 1608; key 1609, 1610, the 10 over 09; bell over key 1610, the 10 over 09; bell, 1610; obverse, mullet; reverse, bell 1610; mullet 1611; tower 1612 (Mr. S. Spink has told me that his firm once had in their possession one with this mark and date); trefoil 1613 (Plate III, 21); cinquefoil 1615; and ton 1615. Snelling mentions one with the date 1614, which would have the cinquefoil.

Third Period.—The harp occasionally varies in size, and some of the sixpences with rose (Plate II, 22) and thistle mint marks have a plain harp. None have the plume over the shield.

Sixth Bust.—Mint marks: rose 1621 (Plate III, 22); one with plain harp reads SEPRAT; thistle over rose 1621; thistle 1621, 1622, 1623 (Plate III, 23); lis 1623 (Plate III, 24), 1624; altered die 1624, and trefoil 1624. Major A. B. Creeke mentions in *Numismatic Chronicle*, New Series, XVI, p. 152, that he then had one of 1623 mint

mark lis, on which the arms of France were placed first and third, and those of England second and fourth, in the shield in the first quarter instead of the usual first and fourth, second and third. This error, no doubt, as Hawkins suggests, was due to a mistake of the engraver of the die.

HALF-GROATS.

First Period.—Obverse: First bust, the crown of which cuts a beaded inner circle and has the mark of value II behind the head. Legend I: D: G: ROSA · SINE · SPINA; reverse, square shield with mint mark above, no inner circle or legend.

Mint marks, thistle and lis. (Plate III, 25.)

Second Period.—Obverse: A rose crowned, legend same as above, sometimes SPIN for SPINA; reverse, a thistle crowned. Legend, TVEATVR · VNITA · DEVS. The crown on both sides cuts a beaded inner circle. The mint mark is at the beginning of the legend, and has a pellet between it and the I of the legend, except with the mint marks coronet and key, where there is no room for it.

There are two varieties which differ from each other in the size of the crown over the rose. The alteration from the large to the small crown corresponds to the changing from the fourth to the fifth bust.

First Variety, with large crown, 1604–1608.

Mint marks, lis (Plate III, 26), rose; obverse, escallop; reverse, escallop over rose, escallop, grapes, and coronet. (Plate III, 27.)

Second Variety, with small crown, 1608–1619.

Mint marks, coronet (Plate III, 28), key, mullet, tower, trefoil, cinquefoil SPINA and SPIN, ton, book, and plain cross. Hawkins mentions one mint mark coronet which reads VNATA instead of VNITA, but makes no reference to the size of the crown.

Third Period.—These half-groats are similar to those above, but obverse legends read I: D: G: ROSA SINE SPINA, and on the reverse have no pellets between the words. One with mint mark spur-rowel (Plate III, 29) reads DEV and has pellets between the words on both sides, and another mint mark, trefoil, reads I. D. G. ROSA.



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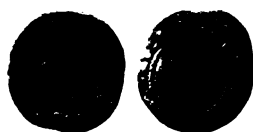
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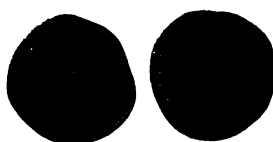
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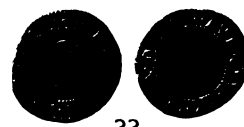
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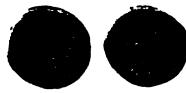
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SINE. SPI. There are also two other varieties of mint mark lis, one with no inner circles (Plate III, 30); my own specimen reads DE9 instead of DEVS; this 9 is merely a mark of abbreviation similar to that after IACOB on the shillings and sixpences, and the other without inner circle on the reverse (Montagu Catalogue, Third Portion, Lot 216). Some with the trefoil have the mint mark at the end of the legend. There is no pellet between the mint mark and I.:

Mint marks: spur-rowel, rose, thistle, ditto, reverse only, at end of the legend, lis, and trefoil. (Plate III, 31.)

PENNIES.

First Period.—These are similar to the half-groats except that the mark of value is I. The mint marks are thistle and lis. (Plate III, 32).

Second Period.—These are similar to the half-groats except that there is no crown over the rose and thistle, and there is a pellet each side of the mint mark. Commencing with the mint mark Tower there is a semi-colon after ROSA and SINE instead of a pellet.

The mint marks are lis (Plate III, 33), rose, escallop, coronet.—Hawkins mentions that one reads SPINE instead of SPINA—key, key and bell united (Hawkins), presumably bell over key like the sixpence of 1610, bell, mullet, tower, trefoil, cinquefoil, and cross (Hawkins).

There is a penny with no other mint mark but a pellet with the legend similar to that with the mint mark Tower (Plate III, 34), which I place as the last issued in this period. I consider it the first of that series of pennies whose mint marks, with two exceptions, viz., lis 1623-'24, and Charles I., lis 1625, are pellets, which commenced at this time and extended till the plume mint mark of 1630 when the Sovereign's head was reintroduced for this denomination.

Third Period.—These agree with the half-groats of this period in the same manner as the second period pennies and half-groats coincide. The only mint mark is the lis. Some, like the half-groats with this mark, have no inner circles (Plate III, 35), others have no

inner circle on the reverse. There is no pellet on either side of the mint mark. There are a number of pennies with either one or two pellets for a mint mark ; some of these, like those with the lis, have no inner circles on both sides or on the reverse only. One with mint mark two pellets, reads SIN, another VNIA (Burns No. 980), another DE9, the comma like the figure 9 ; another has a pellet between the words on the obverse. This last may be, according to Burns, a Scotch shilling.

The rose pennies of Charles I. existed during his first seven mint marks, but only one is represented, viz., lis 1625, although all appear on the half-groats. The same peculiarity appears here, for there are five mint marks belonging to this period and only one, the lis is figured ; but to make up for their absence in both reigns there are a number without a mint mark, save pellets. These circumstances have led me to the conclusion that the marks were omitted intentionally.

HALFPENNIES.

First Period.—These are the same as Elizabeth's. Obverse : a portcullis with mint mark above ; reverse : a cross moline with three pellets in the angles.

Mint marks, thistle (Plate III, 37) and lis. There are some without any mint mark, but these are generally attributed to Elizabeth.

Second Period.—These have obverse : a rose ; reverse : a thistle with mint mark over it.

Mint marks, lis (Plate III, 38), rose, escallop (Montagu Catalogue, Third Portion, Lot 214), coronet, bell (ditto, Lot 218), mullet (Hawkins), cinquefoil (Montagu, Lot 217).

Third Period.—With the exception of their having no mint mark these are similar to those of the second period (Plate III, 39). In assigning this coin alone to the third period, I am led by the considerations governing my conclusion in regard to the pennies. The Tower halfpenny of Charles I. besides having no mint mark, corresponds to the rose penny in the same degree as this halfpenny does to the rose and thistle penny of the above period. This halfpenny

has also a somewhat coarser appearance than those with mint marks.

Having finished the description of each denomination, I will now sum up the solution I have to offer to the conundrum presented at the commencement of this paper, viz., the proper arrangement of the second and third period coins bearing the mint marks thistle, lis, rose, and trefoil.

Crowns.—The late Mr. Montagu's solution of the difference of rose and crown on housings and the size of the Scotch lion, supported by reference to the difference in the punctuation of the legends.

Half-Crowns.—All to the period 1619–1624, as they have the proper third period reverse.

Shillings and Sixpences.—The difference in the busts, punctuation, and of course on the sixpences, the dates, at once point out their sequence.

Half-Groats.—Thistle 1604 (none), lis 1604, and rose 1605 have a large crown on obverse, and the trefoil a small one. All have semicolons after single letters and pellets after complete words and a pellet on the right of the mint mark.

The rose 1620–'21, thistle 1621–'23, lis 1623–'24, and trefoil 1624, have a small crown on obverse, colons after single letters and nothing after complete words and no pellet by mint mark.

Pennies.—Thistle 1604 (none), lis 1604, rose 1605, and trefoil 1613 have a pellet each side of mint mark, and legends like those on the half-groats, except the trefoil, which has a semicolon after the complete words instead of the pellet.

The rose 1620–'21, thistle 1621–'23, and trefoil 1624 none; the only mint mark of this third period being the lis 1623–'24, which has no pellet on either side of mint mark, and legends like half-groat.

Halfpennies.—All to the second period, except those with no mint mark.

I append a table (p. 176) of mint marks arranged to suit this paper after the manner of that in Hawkins. The crosses represent that they are in my possession; B, in the British Museum; H, mentioned in Hawkins; M, Montagu Sale Catalogue; and N, referred to in the *Numismatic Chronicle* and S, seen by Mr. Spink.

			Crown.	Half-Crown.	Shilling.	6d.	2d.	1d.	½d.	Remarks.
Thistle " Lis	<i>First Period, 1603-4.</i>									
	May 21st, 1603	...	...	...	...	...	...	...	...	1 First bust.
	... 1604	...	...	...	...	...	...	...	...
	May 22nd, 1604	...	...	...	...	...	...	...	...
Thistle Lis Rose " Escallop " Grapes Coronet Key " Bell Mullet Tower Trefoil Cinquefoil " Ton Book Crescent Plain Cross Saltire Cross No Mint Mark	<i>Second Period, 1604-19.</i>									
	1604	...	...	...	...	...	...	...	...	2 No bust.
	1604	...	...	...	...	...	...	...	...
	1605	...	...	...	...	...	...	...	...
	June 20th, 1605	...	...	...	...	...	...	...	...
	1605	...	...	...	...	...	...	...	...
	1606	...	...	...	...	...	...	...	...
	July 10th, 1606	...	...	...	...	...	...	...	...
	1607	...	...	...	...	...	...	...	...
	June 30th, 1607	...	...	...	...	...	...	...	...
	November 11th, 1607	...	...	...	...	...	...	...	...
	1608	...	...	...	...	...	...	...	...
	May 17th, 1609	...	...	...	...	...	...	...	...
Spur-rowel Rose Thistle " Lis " Trefoil No Mint Mark	<i>Third Period, 1610-24.</i>									
	August 20th, 1610	...	...	...	...	...	...	...	...
	June 23rd, 1620	...	...	...	...	...	...	...	...
	1621	...	...	...	...	...	...	...	...
	June 28th, 1621	...	...	...	...	...	...	...	...
	
	1622	...	...	...	...	...	...	...	...
	1623	...	...	...	...	...	...	...	...
	July 3rd, 1623	...	...	...	...	...	...	...	...
	
	1624	...	...	...	...	...	...	...	...
	June 27th, 1624	...	...	...	...	...	...	...	...
	

DESCRIPTION OF THE PLATES.

PLATE I.

1. Crown, 1st Period, mint-mark Lis.
2. " 2nd " " Lis.
3. " " " " Rose.
4. " 3rd " " Lis.
5. " " " " Trefoil. Plume over Shield. Reverse only.
6. Half-Crown, 1st Period, " Thistle.
7. " 3rd " " Rose.
8. " " " " Thistle.
9. " " " " Thistle. Plume over Shield.
10. " " " " Trefoil. Pellet after JACOBVS and ET. Obverse only.

PLATE II.

11. Shilling, 1st Bust, mint-mark Thistle.
12. " 2nd " " Thistle.
13. " 3rd " " Lis.
14. " 4th " " Grapes.
15. " 5th " " Ton.
16. " 6th " " Lis.
17. " " " " Lis. Plume over Shield. JACOB.
18. Sixpence 1st " " Thistle 1603.
19. " 2nd " " Thistle 1603.
20. " 3rd " " Lis 1604.

PLATE III.

21. Sixpence, 4th Bust, mint-mark Trefoil 1613.
22. " 6th " " Rose 1621. Plain Harp.
23. " " " " Thistle 1623. Large Harp.
24. " " " " Lis. JACOB. Small Harp.
25. Half-groat, 1st Period, mint-mark Lis.
26. " 2nd " " Lis.
27. " " " " Coronet. Large Crown.
28. " " " " Coronet. Small Crown.
29. " 3rd " " Spur Rowel.
30. " " " " Lis, no inner circles.
31. " " " " Trefoil, mint-mark at end of legend.


- 32. Penny, 1st Period, mint-mark Lis.
- 33. " 2nd " " Lis.
- 34. " " " no mint-mark.
- 35. " 3rd " mint-mark Lis. No inner circle on obverse.
- 36. " " " no mint-mark.
- 37. Halfpenny, 1st Period, mint-mark Thistle.
- 38. " 2nd " " Lis.
- 39. " 3rd " no mint-mark.

Note.—Nos. 7 and 29 are in the British Museum and the rest are in the author's collection.

EARLY AUSTRALIAN COINAGE.

BY ALFRED CHITTY.

Corresponding Member of the Council (Melbourne).

S it is only 120 years (January 26th, 1788) since Governor Phillip, who brought out the first fleet, arrived at Port Jackson and landed on the present site of Sydney, there can, of course, be no antiquity claimed for any Australian coins. There are, however, many interesting incidents connected with Australian currency.

For several years after the formation of the settlement a system of barter was carried on, rum forming the principal medium of exchange. The want of a satisfactory circulating medium, however, soon made itself felt, and many private persons, shopkeepers, etc., issued promissory notes from twopence upwards. In the early days there was a great scarcity of British money, what little coin there was in circulation consisting for the most part of a great variety of foreign coins, principally Spanish dollars.

This led Governor King to issue his proclamation, dated November 19th, 1800, which ran as follows :—

“Whereas Representations of the Want of small money, experienced here, has Induced His Majesty to take into His Gracious Consideration the Immediate relief from this great Inconvenience to all Classes of His Subjects in this Colony, a Quantity of Copper Coin has been received in His Majesty's Arméd Vessel “Porpoise,” and will be circulated, by being paid for Grain and Animal Food supplied His Majesty's Stores.

“These are therefore to give notice that a Copper Coin, weighing One English ounce, and stamped with the profile of His Majesty on the one side, and of Britannia on the other, will be Issued as Above, at the rate of Two pence for each Copper ; and that the same shall be

paid, and pass Current in the Colony, and is to circulate at the Aforesaid Rate of Two Pence.

"And that no one may plead Ignorance of the Rate or Legality of this or any other of the Coins circulating in this Colony, of which it does not appear that any regular Proclamation has ever collectively been issued, I have judged it most expedient herewith to publish the following Table of all the Specie legally circulating in this Colony, with the Rates Affixed to each at which they shall be considered, and be a legal tender in all payments or transactions in this Colony.

"TABLE OF SPECIE.

	£	s.	d.		£	s.	d.	
A Guinea	1	2	0	A Spanish Dollar ...	0	5	0
A Johanna	4	0	0	A Rupee ...	0	2	6
A Half Johanna	2	0	0	A Dutch Guilder ...	0	2	0
A Ducat	0	9	6	An English Shilling ...	0	1	1
A Gold Mohur	1	17	6	A Copper Coin of One			
A Pagoda	0	8	0	Ounce ...	0	0	2

"God Save the King.

"When a sufficient quantity of Copper Coin is received in the Colony, of which notice will be given, no private NOTES or CARDS will be allowed to Circulate. This Supply of Copper having been sent to relieve the Inconvenience of persons requiring to make small payments, no persons are to Collect the same for the purpose of making large payments, nor shall it be deemed a legal tender to offer the same in payment for any sum exceeding five pounds. And it is hereby declared that the Exportation or Importation of any sum in Copper exceeding £5 shall be punished by Fine of treble the value, and forfeiture of the sum exported or imported."

The above proclamation shows in what an unsatisfactory condition the currency of the Colony must have been at this time. Even with so many different coins in circulation, it was difficult to keep the money in the Colony, which at this time had little or nothing to export. Consequently every ship arriving with goods for sale took away some of the little coin there was.

The proclamation did not prevent the issue of notes for small amounts, as it was found to be necessary to continue them owing to the great scarcity of small change.

The next notable attempt to regulate and improve the currency

was when Governor Macquarie, by a proclamation dated July 1st, 1813, ordered the issue of the Holey or Ring Dollar :—Plate, Fig. 1. These were made out of the Spanish Dollar, which was circulating at that time at the rate of five shillings. A piece measuring $\frac{11}{16}$ of an inch was struck out of the centre of the dollar, while the rim was impressed on the obverse with the words FIVE SHILLINGS above and with two sprigs of laurel below, while the reverse was impressed with the words NEW SOUTH WALES above and 1813 below. The piece struck from the centre, which was known as a dump, was ordered to pass current for fifteen pence.

Obverse.—A crown in centre, NEW SOUTH WALES above ; 1813 below.

Reverse.—FIFTEEN PENCE in two lines.

Edge.—Roughly milled. Plate, Fig. 2.

These two pieces, which were thus of the aggregate value of six shillings and threepence, were, by the proclamation of Governor Macquarie, declared a legal tender in all transactions, except in cases where some other mode of payment had been distinctly specified. All articles of merchandise received into His Majesty's Stores were to be paid for with these new pieces. In order to confine these pieces to local circulation, heavy penalties were imposed on any person found exporting them. Dollars to the amount of £10,000 were converted into these pieces. These two coins, the first Australian pieces to be struck, no doubt served a very useful purpose in their day. Such a coinage, however, could only be a temporary expedient, and the first step towards the withdrawal of the Holey Dollar was the proclamation dated 25th July, 1822, notifying that this coin would be exchanged for sterling value, if tendered for payment within six weeks. On the 15th November, 1822, a further proclamation was issued giving notice that the Quarter Dollars, or "Dumps," would be similarly exchanged if presented within six weeks, after which they would pass current for one-fourth part only of the Spanish Dollar. In a public notice dated 13th March, 1823, it is also stated that the Holey Dollar would be received as three-fourths of the Spanish Dollar. The next important step towards their withdrawal was the General Order, dated 16th September, 1828, stating that the "Ring Dollars and Dumps"

would be received until the 31st October following at 3s. 3d. and 1s. 1d. respectively. Another General Order was issued on the 7th August, 1829, notifying that their exchange would be continued until the 30th September following, but no longer. After that date they ceased to be officially recognised, but lingered in circulation to a small extent.

Ten years after the issue of this coinage, the first Australian token was struck, this being the rare Tasmanian shilling issued by Macintosh and Degraives.

Obverse.—ONE SHILLING TOKEN in three lines in centre, SAW MILLS above, MACINTOSH AND DEGRAVES below.

Reverse.—A kangaroo, TASMANIA above, 1823 below. Plate, Fig. 3.

There are no artist's initials on this token, nor anything to indicate where it was struck. As it is unlikely that at that early date there was any coining press in the Colony, it is most probable that they were struck in England and sent out to Tasmania. They are seldom met with, and probably the issue was very small.

The next silver tokens issued were the Victorian shilling and sixpence. These bear no date, but, from the workmanship and general appearance of the tokens, there can be no doubt that they were designed and struck at about the same time (1853) as the Port Phillip gold pieces. They are rather scarce, and it is probable that few came into circulation, and then only to a small extent. All the specimens which the writer has seen are in mint condition. Specimens struck in silver and copper are in the writer's collection, and specimens in gold and aluminium are also said to exist.¹

Obverse.—Head of Queen Victoria to left in centre, VICTORIA above, AUSTRALIA below, in incuse letters upon a raised engine-turned rim.

Reverse.—Large 1 with grained surface in centre, ONE SHILLING above, in incuse letters on rim. Plate, Fig. 4.

The sixpence is similar to the shilling excepting in size and value. Plate, Fig. 5.

The next series of silver tokens were the threepenny tokens issued

¹ The only original issue appears to have been in silver, and these are somewhat rare. Restrikes have been made in this and the other metals mentioned.

in New South Wales between 1854 and 1860, of which there are the following twelve varieties :—

1. *Obverse*.—Rose, shamrock and thistle in centre. JAMES CAMPBELL MORPETH in outer circle. GENERAL STORES in inner circle.

Reverse.—Large 3 with curved arm, rising sun above. SILVER TOKEN. Plate, Fig. 6.

This token, together with the three following, was struck by J. C. Thornthwaite, of Sydney. It is very scarce.

2. *Obverse*.—Australian arms, rising sun as crest; supporters, kangaroo to left, emu to right. SYDNEY NEW SOUTH WALES 1854.

Reverse.—Large 3 with straight arm, rising sun above. SILVER TOKEN J.C.T. Plate, Fig. 7.

3. As No. 2, but differing in figure 3.

4. *Obverse*.—As No. 2.

Reverse.—As No. 2, but with floriated 3, and with 1854 in place of J.C.T. Plate, Fig. 8.

5. *Obverse*.—A kangaroo to left and an emu to right, a palm-tree (with four heads) between them. HOGARTH ERICHSEN & C JEWELLERS SYDNEY.

Reverse.—Large 3 dividing the date, 18-58, within a wreath of oak. Plate, Fig. 9.

6. *Obverse*.—As last, but the palm-tree has only one head.

Reverse.—As last, but the value and date are in smaller figures. Plate, Fig. 10.

7. *Obverse*.—Similar to No. 5, but legend reads PAYABLE AT HOGARTH ERICHSEN & Co SYDNEY.

Reverse.—As No. 5. Plate, Fig. 11.

8. *Obverse*.—An emu to left and a kangaroo to right, a grass-tree between them. HOGARTH ERICHSEN & Co SYDNEY. The word SYDNEY is in a straight line in *exergue*.

Reverse.—As No. 6. Plate, Fig. 12.

9. *Obverse*.—As last, but SYDNEY curved.

Reverse.—As last. Plate, Fig. 13.

10. *Obverse*.—A kangaroo to left and an emu to right, a grass-tree between them. REMEMBRANCE OF AUSTRALIA.

Reverse.—Large 3 in centre, surrounded by two olive branches. HOGARTH & ERICHSEN SYDNEY between the edge of the coin and wreath. 1860 in minute figures above the word SYDNEY. Plate, Fig. 14.

11. As last, but with upset reverse.

As all Australian collectors include upset varieties, it is mentioned here.

12. *Obverse*.—An aboriginal facing to right with a boomerang in right hand, and the left hand raised to head. HOGARTH ERICHSEN 1860, the date being in minute figures in *exergue*.

Reverse.—As obverse of No. 10. Plate, Fig. 15.

Nos. 10 and 11 are generally found struck in base silver. It is said that when this was discovered, the issuers were compelled to call them in, confiscation of the plant being threatened. These silver tokens were the last issued in Australia.

For several years there has been a desire that the Australian Colonies should be allowed to strike their own silver coins, but this has hitherto been opposed by the Home Government. Since the Federation (January 1st, 1901) of the different Colonies, now States, the House of Representatives has passed resolutions that a distinct silver coinage should be struck, and this will probably be done in the near future. The present difficulty is that the Home Government is only willing to withdraw each year so small an amount of the silver now in circulation that it is estimated that it will take twenty years before it is all called in.

The extensive discoveries of gold, in the year 1851, in Victoria, New South Wales, and, to a smaller extent, in South Australia, and the ease with which it could be found, caused a great rush of diggers and others from almost all parts of the world. Business and all commercial transactions were then in a very unsettled and unsatisfactory state, and this was intensified by there being little gold coin in circulation. Diggers were met by the regulation that all miners' rights and purchase money for Crown lands had to be paid for in gold coin. This was very hard on the diggers, who had to barter their gold for whatever price they could get, often as low as 30s. and not higher than 50s. an ounce. It was finally agreed that, in the absence of gold coin, gold to the amount of half an ounce would be accepted in payment.

To South Australia must be attributed the honour of issuing the first gold pieces. In order to meet the urgent want of gold coin the Legislative Council (there being then only one Chamber) passed, at

one sitting, in January, 1852, an Act authorising the issue of gold ingots, to be stamped with the weight and fineness thereof. These ingots, though oblong in shape, are generally known as the Adelaide square pound. The following is a description of one of these ingots.—

In a circle, WEIGHT OF INGOT OZ. 0 DWT. 5 GR. 5 EQUIV.
WEIGHT OF 22 CARATS OZ. 0 DWT. 5 GRS. 15. Below the circle,
S.A. surmounted by a crown, 23 CARATS and other numerals.

This Act was superseded in November of the same year by another Act authorising the issue of pieces of the value of £5, £2, £1 and 10s. A die for the £5 was prepared, and is now at the Adelaide Treasury. No pieces of that value, however, were issued, those for £1 being the only value struck out of the four authorised. These pieces became known as the Adelaide sovereigns, the design being as follows :—

Obverse.—GOVERNMENT ASSAY OFFICE ADELAIDE 1852, the date, surmounted by a crown, being within an inner circle.

Reverse.—WEIGHT . 5 DWT : 15 GRS : 22 CARATS . and within an inner circle VALUE ONE POUND. Plate, Figs. 16 and 17.

There are two varieties of this piece. The die for the reverse of the first design, having become cracked, was soon withdrawn, and consequently the earlier specimens are much scarcer. They may be distinguished by their having on the reverse a dotted circle between two linear circles, Fig. 16, while the second issue has a crenated circle, Fig. 17, as on the obverse. The size and type of lettering also differs. The number of these pieces struck is stated to have been 24,768. They circulated freely for some years and proved very useful to the colonists. Owing, however, to the real gold value of these pieces being considerably higher than their value as currency, many were exported to London, where they readily realized £1 1s. 10½d. at the Mint.

Port Phillip, which was originally part of New South Wales and was constituted a separate Colony (Victoria), on 1st July, 1851, issued the next gold pieces.¹

¹ These pieces have also been restruck to a limited extent, in fact, it is doubtful if original strikes of the two-ounce piece exist. The restrikes are in red gold, whilst the original pieces are struck in yellow gold. Probably there are not half a dozen sets of the original issue extant.

Obverse.—A kangaroo in centre, 1853 below. PORT PHILLIP AUSTRALIA in incuse letters upon a raised rim.

Reverse.—Weight in numerals in centre. PURE AUSTRALIAN GOLD and weight in words in incuse letters on rim. Plate, Figs. 18 and 19.

Four sizes were struck, of the weight of $\frac{1}{4}$, $\frac{1}{2}$, 1 and 2 ounces respectively. On the two larger pieces the weight in words also appears in minute incuse letters upon the numeral in centre. The two-ounce piece also occurs dated 1854, the dies for which piece are said to be in the possession of the Melbourne Mint.

Mr. Thomas Stokes, who struck so many of the Australian copper tokens, and who is still in business in Melbourne as a medallist, states that these pieces were struck by W. J. Taylor, of London, who sent out a coining press to Melbourne at that time.

Gold was then selling at the low price of about fifty shillings per ounce, and it was thought that, if it were minted into pieces of convenient sizes with the weight stamped upon them, they would freely circulate at their full value. No doubt this plan would have worked well and would have proved very profitable, but as soon as Taylor's mint was ready, the banks were buying gold at its full value, and consequently the scheme fell through, only a few proofs being struck. The coining press and plant were subsequently purchased in 1857 by Mr. Thomas Stokes, who states that they were sent out in charge of Mr. Scalfe, and were first used in the Melbourne Exhibition of 1854. Consequently it is probable that the Port Phillip gold pieces were struck there, as also the Victoria shilling and sixpence previously described.

Owing to the extensive discoveries of gold in New South Wales and Victoria, there was soon an agitation for the establishment of a branch of the Royal Mint. An Act was passed in 1854, which provided for the establishment of a mint at Sydney, and this was opened on the 14th May, 1855. The building used for the mint was part of Governor Macquarie's Hospital, which was also known as the Rum Hospital, owing to its having been built by a syndicate of three persons, in consideration of their being granted the privilege of importing and selling rum.

The coinage of sovereigns and half-sovereigns had already been ordered, and patterns were prepared in 1853, of which there are specimens in the British Museum. There was, however, no issue until 1855. The first type, issued for 1855 and 1856, shows the Queen's head filleted, with date below, and with legend VICTORIA D : G : BRITANNIAR : REGINA F : D : The reverse has in the centre, within a wreath, AUSTRALIA surmounted by a crown. SYDNEY MINT above the wreath. Value below. Plate, Figs. 20 and 21. The obverse design was slightly altered in 1857, the Queen's head being laureated, and the legend reading REG : instead of REGINA. Plate, Figs. 22 and 23. This design was used until 1870. Since that year the design has been the same as that of the British coinage, with the exception of a small mint-mark, S for Sydney, M for Melbourne, and P for Perth. The Melbourne Mint was opened on 7th June, 1872, and the Perth (Western Australia) Mint on 20th June, 1899. The dies for all the three Australian branches of the Royal Mint are prepared in London and sent out to the Commonwealth mints.

When the Sydney sovereigns and half-sovereigns were first issued, and for a few years afterwards, they met with a very poor reception in Victoria, the Melbourne shopkeepers and public not caring to give more than 19s. for them. The same thing happened in London, where 1s. was charged for exchanging the sovereigns. There is no doubt that, when the British authorities gave their consent to the establishment of the Sydney Mint, it was intended that the coins should only circulate in Australia ; but by a proclamation dated 6th February, 1867, they were declared to be legal tender in all parts of the realm.

In this paper no mention is made of the extensive circulation of copper tokens and the issue of paper notes. This might be written about at some future time.

THE BRONZE COINAGE OF QUEEN VICTORIA.

BY FLEET-SURGEON A. E. WEIGHTMAN, R.N.

THE Bronze Coinage of Queen Victoria was introduced in the year 1860, to replace the copper coinage first inaugurated by Charles II. in 1672. The new material for coinage had several advantages over the old, chief of which were greater cleanliness and greater durability. But bronze is not as easy to strike coins in as copper, and the large number of die varieties found in this coinage is evidence of the great difficulties the Mint authorities had, at any rate at first, in coining in this metal. It is my purpose to describe as many of these varieties as I have been able to discover. I should like to remark before going any further, that only coins well struck up and in mint condition are of use for the observation of the changes in the dies for these coins, as many of the differences are very difficult to make out unless very perfect coins are examined. I shall endeavour to point out the varieties there are of each year, and, with some few exceptions, only those variations of the central design indicating some change made in the matrix die or the puncheon derived therefrom, and will as a rule neglect those variations only to be found in the working dies from which the coins were actually made, although I shall call them all die varieties. For the sake of conciseness, only the most marked differences will be pointed out, those sufficient to differentiate the one die from that other for which it may be mistaken. In several years more than one obverse or reverse die was made use of, and in some cases I have given the different dies of the one year a more or less arbitrary number to distinguish them. It can be easily understood that one obverse die can be used with more than one reverse die, and that one reverse die may be used with several obverse dies ; and if these dies are numbered,

their combinations may be represented by a formula similar to vulgar fractions, placing the number of the obverse die above and of the reverse below the line. The bronze coinage from 1860 to 1894, both years inclusive, was struck from dies prepared by Leonard Courtney Wyon, whose name or initials appear on some of the coins of 1860 and 1861; and in these thirty-four years, although there were many changes in the dies, all these changes took place in two groups of years, thus:—

1860–61,	inclusive	2	years,	there	were	many	changes.
1862–73,	„	11	„	there	were	no	changes.
1874–82,	„	9	„	there	were	many	changes.
1883–94,	„	12	„	there	were	no	changes.

It is quite easy to understand that in the years 1860–61 there should be many changes. The Mint was dealing with a metal it had no previous experience of, one difficult to work and so refractory that it broke up the dies very rapidly. The bronze coinage was to replace an older coinage of copper which was ordered to be called in, and the change was to be made as rapidly as possible, so that in these years an exceptionally large number of pieces were required, a fact which doubtless added greatly to the difficulties the Mint had to contend with. But they quickly acquired the necessary experience and skill, and from 1862 for eleven years no changes in the dies were found necessary. This period of stability seems suddenly to have been disturbed, and from the year 1874 for a period of nine years there were constant changes in the dies. Whatever the difficulties were which caused these frequent changes, the Mint successfully overcame them, and since 1882 there have been no changes in the dies except for æsthetic reasons and the necessary change on the accession of King Edward down to the present day. For example, there is absolutely no difference between the new reverse of 1895 and the reverse of the present year of grace, 1907.

In the year 1860, the first year of the new coinage, all the pieces, pennies, halfpennies and farthings, were at first made with a beaded circle just inside the rim; and this was in the same year changed to a circle formed by tongue-shaped elevations; and these pieces I refer to

as having a serrated circle. This is admittedly a bad name, and my excuse for using it is that it is very commonly used.

PENNY.

1860. Beaded Circle.

Obverse.—VICTORIA D : G : BRITT : REG : F : D : Laureated bust of Queen to left, draped in bodice and cloak. The laurel wreath has four faintly marked berries; the bodice has for a brooch a single rose seeded and barbed; the cloak is embroidered with the rose, shamrock, thistle and the "garter," on which last is HONI SO; within it is a star. The groundwork of the cloak is represented by faint lines. The hair at the nape of the neck is fine and slightly waved. L · C · WYON is on the truncation of the shoulder. The whole is surrounded by a beaded circle between two linear circles, the inner of which is fine and is broken below by the bust; the outer is thick and forms the margin.

Reverse.—ONE PENNY. Seated figure of Britannia facing to right, draped in long flowing robes; on the breast is scale armour, the right side of which is ornamented by three scrolls; the uppermost turns inwards, the two lower turn outwards; the left side has two scrolls which turn outwards. The right hand rests on a shield, on which is a device representing the Union Flag. The left hand holds a trident. To the left is a lighthouse on a rock, to the right of which are waves. To the right is a man-of-war with sails set. The initials L · C · W. appear on the rock below the shield. In the exergue is the date. The whole is surrounded by a beaded circle between two linear circles as on the obverse.

I have only seen one die for the obverse of the beaded circle, but there are two dies for the reverse differing from one another in the shields. In No. 1 the crosses are formed by three sunk lines; in No. 2, the crosses are formed by two raised lines.

1860. Serrated Circle.

Obverse.—VICTORIA D : G : BRITT : REG : F : D : Laureated bust of Queen to left, draped in bodice and cloak. The four berries in the laurel wreath are well marked. The whole design and legend are surrounded by a toothed or serrated circle between two linear circles. In other respects the design is very similar to that of the "beaded circle."

Reverse.—ONE PENNY. Seated figure of Britannia with shield and trident. A lighthouse to the left, a man-of-war to the right. The whole is surrounded by a toothed or serrated circle between two linear circles. In other respects the design is very similar to that of the beaded circle.

I have observed two distinct types of die of the obverse of the serrated circle of this year, and there are two dies of each type, making four dies in all.

In Type I the hair at the nape of the neck is long and fine, it is directed forwards and is sharply curled at the ends. The berries in the wreath are large and prominent. In this type the signature when present is on the surface of the coin below the truncation.

In Type II the hair at the nape of the neck is short and coarse, the locks are directed downwards, and the ends are not sharply curved. The berries in the wreath are not so prominent as in Type I. The signature is always on the truncation.

The two dies of Type I are easily distinguishable one from the other: in die No. 1 the signature is below the truncation, in die No. 2 there is no signature at all. These dies are very similar except for the presence or otherwise of the signature, so similar that it is difficult to note in what the difference is; but the hair is treated slightly differently, as are the leaves of the wreath. In the die with the signature, the midribs of the leaves are raised lines; in the die without the signature, the midribs are made by two sunk lines. The whole design of Die I is softened; in Die II it is stronger and more clearly defined. Two artists appear to have been at work on the dies for the early bronze coinage, and they used different methods to get the same effect. Hence we have the two reverses of the beaded circle of 1860; in one the crosses in the shield are in sunk lines, in the other they are in raised lines, the difference in these two obverse dies of Type I of 1860; and we have similar differences in the dies for the halfpenny and farthing.

I have said that there are two dies of Type II; this is not really the case, the pennies of this type being produced from many dies which differ from one another in varying degrees. These differences appear

to depend on the relative position of the bust to the linear and serrated circles. In some the lower folds of the bodice do not touch the serrated circle, and only half the thistle leaf in the cloak is shown; and where this condition is marked I have called it Die 3. In others the lower fold of the bodice touches the serrations and the whole width of the thistle leaf is seen, and this I have called Die 4. An examination of the thin linear circle will demonstrate how much the dies of this type differ from one another. In some cases the inner linear circle ends at the edge of the bust; in others it passes a short distance under the bust, and in others again it reaches as far as the brooch.

Obverses of Serrated circle of 1860.

Type I.—

Die 1. Signature below bust.

„ 2. No signature.

Type II.—

Die 3. Bodice does not touch serrations, and only half the thistle leaf is shown.

„ 4. Bodice touches serrations; whole width of thistle leaf is shown.

There are three different reverses. In Die 1 the initials L . C . W . are below the shield. In Die 2 there is no signature and in Die 3 the initials L . C . W . are below the foot. Dies 1 and 2 are identical with one another except for the presence or otherwise of the initials. The prominent portion of the rock on which the initials are placed, seems to have been gradually rubbed down, and specimens occur in which C . W . only is to be seen; others have W . and others again have only the remains of W. Die 3, in addition to the different position of the initials L . C . W . also shows some slight differences in the lighthouse and in the ship, and the drapery is treated in a slightly different manner.

Reverses of serrated circle of 1860.

Die 1. L . C . W . below the shield.

„ 2. No signature.

„ 3 L . C . W . below the foot.

It is to be noted that the signature of the obverse is always in raised letters and that the signature on the reverse is always in sunk letters.

It is said that the change from the beaded circle to the serrated circle was due to the greater liability of the dies of the beaded circle to fracture; this may be so, and coins of the beaded circle are often found in which the beads are very imperfect. But this change was accompanied by another change, that of raising and thickening the linear circle of the obverse which forms the extreme margin of the coin; the raising of this outer linear circle improves the appearance of the coin greatly, and does away with the flat unfinished look of the obverse of the beaded circle coins. The thickening of the outer linear circle encroaches necessarily on the space allowed for the beads, the outer portions of which become included in the outer linear circle and thus the two circles become one. The outer linear circle on the reverse was originally thick enough, but it was also slightly raised, and to make both sides alike the beads were altered to serrations.

In the year 1861 at least three of the obverse dies of the previous year were used, namely:—No. 1 “with L · C · W Y O N below the truncation”; No. 2 of the same type as No. 1, but without signature; and No. 4 “with L · C · W Y O N on the truncation and the bodice touching the serrations.” A new die was also brought into use; it is unsigned, and after this year the bronze coinage remained unsigned until the year 1895, when Brock’s “veiled head of the Queen” took the place of Wyon’s coinage. In order to distinguish between the two unsigned dies, the following points may be observed:—

1860 die, *i.e.*, Die 2 of 1860.

1. There are three leaves in the top row.
2. The left berry of the upper row of berries is on the left leaf of the second row of leaves.
3. The right berry of the lower row of berries, which is a prominent one, is on the centre of the right leaf of the fourth row of leaves.
4. There are three leaves in the fourth row.

1861 die, *i.e.*, Die 4 of 1861.

1. There are four leaves in the top row.
2. The left berry of the upper row of berries is between the left leaves of the second and third rows of leaves.
3. The right berry of the lower row of berries, which is hardly perceptible, is between the right leaves of the third and fourth rows of leaves.
4. There are four leaves in the fourth row.

The lock of hair over the ear in the 1861 die is more markedly waved; the hair at the nape of the neck is longer, and the whole design is sharper and more defined, the ground work of the cloak being especially so.

The following is a list of the obverse dies of 1861 :—

- Die No. 1. L · C · W Y O N below the truncation = No. 1 of 1860.
- „ „ 2. No signature = No. 2 of 1860.
- „ „ 3. L · C · W Y O N on the truncation = No. 4 of 1860.
- „ „ 4. No signature = the new die of 1861.

Three reverses were used in 1861. No. 1 is the same as No. 1 of 1860, with L · C · W · below the shield. No. 2 differs from No. 1 in not being signed; the lighthouse is of a different shape and shows the masonry more clearly; the drapery is treated differently, especially that below the waist and at the back of the foot. In both these reverses the breastplate has two scrolls on either side of it; the tip of the right thumb reaches as far as the upper border of the right limb of the St. George's Cross in the shield, and the lantern of the lighthouse is small and is not divided by perpendicular lines, but is indicated by coarse horizontal lines. No. 3 differs considerably from Dies 1 and 2; the breastplate has only one scroll on either side of it, the tip of the right thumb is some distance from the St. George's Cross, the lantern of the lighthouse is large and is divided by six perpendicular lines, and the drapery is treated in a different manner. There are varieties of dies (No. 2 and No. 3) in which the final figure 1 is too far off the 6, and of No. 3 in which the final figure 1 is too far off the 6, and has been double struck; the original figure had been placed in the die far too low. This variety is noteworthy, as the silver and bronzed proofs, shown by Wyon at the Exhibition of 1862, were of this kind.

Reverses of 1861 :—

- Die No. 1. L · C · W · below the shield. The right thumb touches St. George's Cross.
- Die No. 2. No signature. The right thumb touches St. George's Cross.
- Die No. 3. No signature. The right thumb does not touch St. George's Cross.

In 1862 and in the succeeding years up to and including 1873, the only dies used were obverse die 4 and reverse die 3 of 1861, the date being altered on the reverse for each year. In the years from 1862-1865 there is often some irregularity in the arrangement of the figures of the date, the last figure not being placed symmetrically. In 1862, in some cases, the 2 is too far off and is slightly tilted from the perpendicular.

In 1874 a new obverse die and a new reverse die were introduced. In the old obverse the laurel wreath had only four berries, the hair at the nape of the neck is fine and long, and the locks of hair of the head are sharply defined. In the new obverse there is very little hair at the nape of the neck, there are six berries in the wreath, the hair of the head is softened and the locks ill-defined. The nose is more aquiline, the cloak is much smaller, the lower thistle leaf having disappeared altogether, and only half the brooch is shown. In the old reverse the figure of Britannia is exceedingly well designed and proportioned, the prongs of the trident are fine, and the lighthouse is thick. In the new reverse the figure of Britannia is not nearly so graceful: the whole figure is thinner; the helmet is narrow and appears high in consequence; the neck is thin, as is the right arm, which is further away from the body; the thumb does not reach so low down, the lighthouse is taller and narrower, the prongs of the trident are broader and less ornamented, and the shaft is thicker and more prominent. In repairing the old die the simple expedient seems to have been adopted of grinding off the flat surface of the die and touching up the lighthouse and the shaft of the trident. Both the old and new obverses and the old and new reverses were used in the coinage of this year. The old obverse is only to be found in combination with the old reverse, but the new obverse is found with the old reverse as well as the new reverse. Much of the coinage of this year was struck by Messrs. Heaton & Sons at Birmingham, for the Government, and these pieces are distinguished by having a small capital H below the date. The pennies of this year are, therefore, divisible into two groups, that of the London coinage and that of the Birmingham coinage.

I have observed the following varieties of the London pennies :—

Old obverse.	Old reverse.
New obverse.	Old reverse.
New obverse.	New reverse.

And of the Birmingham pennies :—

Old obverse.	Old reverse.
New obverse.	Old reverse.
New obverse.	New reverse.

Out of a possible eight varieties, six are found to exist ; whether the other two exist I cannot say, but as they are the same varieties in both the London and the Birmingham mintings, that variety with the old obverse of 1861, and the new reverse of 1874, seems rather to indicate they do not.

In 1875, the new obverse of 1874 only was used, but with two reverses, the new reverse of 1874 and a new reverse of 1875. These reverses are readily distinguished by the difference in size of the lighthouse ; the 1874 lighthouse is tall and thin, the 1875 lighthouse is shorter and thicker. This new reverse of 1875 greatly resembles the old reverse of 1861, Die No. 4, which had been used for so many years, but differs from it in one important point. In the old die the sea had been allowed to overlap the serrated circle on either side, but in the new die the overlapping portions were cut out. As in the previous year, part of the coinage was struck in Birmingham as well as in London. Both reverses were used in the London mint, but I have only seen the penny with the new reverse of 1875 from the Birmingham mint.

In 1876, the pennies appear all to have been struck at Birmingham, and both the 1874 and the 1875 reverses were used, this being the last use of the new reverse of 1874.

In 1877 and 1878, the 1874 obverse and the 1875 reverse were used, and the coins of these dates were minted in London, the Birmingham mint not being again employed until 1881.

In 1879, the obverse die was altered ; the veining of the leaves of the laurel wreath in the altered die is by two sunk lines instead of by

one raised line as heretofore, and the hair is treated quite differently. The obverse die of 1874 was used as well as the new die of 1879.

In 1880, the new obverse die of 1879 was used, but a new reverse die was used as well as the old. In this new reverse, waves have been added to the left of the rock on which the lighthouse stands, the head of the trident is more ornamented, the eye-hole of the helmet is more distinct and the right index finger is longer. This die seems only to have been used in this year.

In 1881 a new obverse die and a new reverse die were introduced, in addition to the obverse die of 1879 and the reverse die of 1875. The new obverse shows the hair of the head in numerous small waves, quite different from the treatment of the hair in the earlier dies and in the dies after this date. A considerable alteration was made on the reverse die. The Union Flag had formerly been represented by the outlines of the crosses, but in this year the whole flag was depicted in heraldic colouring. Part of the coinage was struck in London and part in Birmingham: the pennies struck in London have not the heraldic colouring of the flag on the shield, those struck in Birmingham are from the new dies. There are two minor varieties of the Birmingham coins, one in which the small capital H touches the inner linear circle, the other in which the H is higher up and between the figures of the date.

In 1882, again, a new obverse die and a new reverse die were introduced. The new obverse shows the hair treated in a way similar to, though not the same as, that in the dies prior to the new die of 1881 (with the small waves of hair). In the new reverse die of this year, there are no scrolls on the edge of the breastplate; the lighthouse is thinner, and that part of the Union Flag representing white is edged by raised lines instead of being flat. The coins of this year were made in Birmingham, and have the small capital H below the date. The new obverse die of 1882 was used with the reverse die of 1881 (that die with heraldic colouring in the shield and scrolls on the breastplate) and the new reverse die of 1882 (that die with heraldic colouring in the shield and no scrolls on the breastplate). There is a proof of this

year in which the obverse die of 1881 (that die with the small waves in the hair) is used with the reverse die of 1882, so probably a penny of this combination was in current use. I have not seen a penny of the combination of the obverse of 1881 and the reverse of 1881, but expect to find it exists; and this is all the more likely, as the obverse die of 1881 was used in the following year 1883.

Two obverse dies were possibly used in this year (1882), the obverse of 1881 (with small waves in the hair) and the obverse of 1882 (with long waves in the hair) and two reverses were used, the reverse of 1881 (with scrolls on the breastplate) and the reverse of 1882 (with no scrolls on the breastplate). We therefore have the following possible combinations :—

Obverse 1.—Small waves in hair, of 1881.

1. *Reverse 1.*—Scrolls on breastplate, of 1881.

2. *Reverse 2.*—No scrolls on breastplate, of 1882.

Obverse 2.—Long waves in hair, of 1882.

3. *Reverse 1.*—Scrolls on breastplate, of 1881.

4. *Reverse 2.*—No scrolls on breastplate, of 1882.

Of these the second I have not seen, the first I have only seen as a proof, and the third and fourth I have seen as current pieces.

In 1883 the obverse die of 1881 (small waves) and the obverse die of 1882 (long waves) were both used with the reverse die of 1882, and I see no reason why their use with the reverse die of 1881 should not be looked for.

In the succeeding years the 1882 obverse and the 1882 reverse alone were used until the year 1895, when Brock's "Veiled Head" displaced the familiar portrait of the Queen done by Leonard Courtney Wyon at the beginning of the reign and slightly altered to look older in 1874. The lighthouse and man-of-war disappeared as supporters of Britannia; the lighthouse had only been put on the bronze money, but the ship had an older origin, and is first seen on Küchler's design of 1797. These changes did not meet with universal satisfaction, but all must admire the powerful and strenuous-looking figure of Britannia which now adorns the bronze money, with which the little lighthouse and ship would have been much out of keeping.

HALFPENNY.

1860. Beaded Circle.

Obverse.—VICTORIA D : G : BRITT : REG : F : D : Laureated bust of Queen to left, draped in bodice and cloak. The laurel wreath has six berries, the bodice has for a brooch a double rose seeded and barbed, the cloak is embroidered with the rose, shamrock, thistle and the "garter," on which last is HONI S in sunk letters; within it is a star. The groundwork of the cloak is represented by very faint lines. The hair at the nape of the neck is long and fine and directed forwards. There is no signature of the artist. The whole is surrounded by a beaded circle between two linear circles, the inner of which is fine, and the outer is thick and forms the margin.

Reverse.—HALFPENNY. Seated figure of Britannia facing to right, draped in long flowing robes; on the breast is scale armour, the right side of which is ornamented by three scrolls, the uppermost turns inwards, the lower two turn outwards. The right hand rests on a shield, on which is a device representing the Union Flag. The left hand holds a trident. To the left is a lighthouse on a rock; to the right is a man-of-war. In the exergue is the date. The whole is surrounded by a beaded circle between two linear circles as on the obverse.

There is only one obverse and one reverse die for the beaded circle of 1860. In the obverse the three uppermost leaves of the laurel wreath are small, and there are six berries in three pairs, the lowest pair being small and ill-defined. The hair at the nape of the neck is long and very indistinct; it is directed forwards and the ends are sharply curled. The outline of the star on the cloak is in sunk lines. In the reverse the outlines of the crosses on the shield are in sunk lines, and the lighthouse is tall and slender.

1860. Serrated Circle.

Obverse.—VICTORIA D : G : BRITT : REG : F : D : Laureated bust of the Queen to left, draped in bodice and cloak. The whole design and legend are surrounded by a toothed or serrated circle between two linear circles. In other respects the design is similar to that of the "beaded circle."

Reverse.—HALFPENNY. Seated figure of Britannia with shield and trident. A lighthouse to the left and man-of-war to right.

The whole is surrounded by a toothed or serrated circle between two linear circles. In other respects the design is similar to that of the "beaded circle."

There are two obverse and one reverse die for the serrated circle of 1860. In No. 1 obverse there are seven berries and eleven leaves in the wreath. The hair at the nape of the neck is indistinct and short and is directed downwards. The outline of the star on the cloak is in sunk lines. In No. 2 obverse there are four berries and thirteen leaves in the laurel wreath. The hair at the nape of the neck is fine and long and the ends are sharply curled. The outline of the star on the cloak is in raised lines. The groundwork of the cloak is formed by sharp, clean-cut lines. In the reverse the outlines of the crosses are formed by raised lines. The lighthouse shows the courses of masonry, which are wide apart.

In 1861 there were several obverse and reverse dies in use. The obverse dies are very difficult to differentiate and the differences between them are difficult to describe. I make out that there were four different dies. No. 1 die is similar to No. 2 of the year 1860 and No. 4 is similar to the obverse die of 1862. The following points, though not all that make the difference between these dies, are the most easily described and the easiest to distinguish.

Die 1.

1. The topmost leaf in the laurel wreath has a midrib.
2. The midribs of the laurel leaves are formed by a raised line.
3. There are three leaves in the third row of the laurel leaves.
4. The hair at the nape of the neck is long and fine and some of the ends are sharply curled.

Die 2.

1. The topmost leaf in the wreath has a midrib.
2. The midribs are in most cases formed by two sunk lines.
3. There are three leaves in the third row.
4. The hair at the nape of the neck is short and coarse and rather indistinct.

Die 3.

1. The topmost leaf in the wreath is without a midrib.
2. The midribs are in most cases formed by two sunk lines.
3. There are three leaves in the third row.
4. The hair at the nape of the neck is long and fine and some of the ends are sharply curled. Some of the hairs are shown as sunk lines.

Die 4.

1. The topmost leaf in the wreath has a midrib.
2. The midribs are formed by a raised line.
3. There are four leaves in the third row.
4. The hair at the nape of the neck is very long, fine and much curled.

In addition to these points, the hair is treated quite differently in the four different dies, especially the locks of hair over the ear.

There are three reverses of 1861.

No. 1 is distinguished by having the initials L C W upon the rock above the date. The right edge of the breastplate is formed by two scrolls, the upper one turning inwards, the lower one outwards } . The dome of the lantern of the lighthouse is large, and there are no perpendicular lines in the lantern.

No. 2 has no signature. The right edge of the breastplate is vandyked and has no scrolls } . The dome of the lantern of the lighthouse is small, and there are perpendicular lines in the lantern.

No. 3 has no signature. The right edge of the breastplate has three scrolls all turning outwards } . The dome of the lantern of the lighthouse is small. There are no perpendicular lines in the lantern. In some specimens of this reverse the figures of the date are irregular, the last figure being too far off the 6.

Reverses of 1861 halfpenny.

1. L C W on rock above date. Two scrolls to breastplate.
2. No signature. No scrolls to breastplate.
3. No signature. Three scrolls to breastplate.

The obverse die No. 4 of 1861 and the reverse die No. 3 of 1861 were the only ones used in 1862 and the following years, no change taking place until the year 1873, when a new reverse die was brought into use.

The new reverse die of 1873 was used in addition to the old one, and differs from it in the following points. It has larger-sized masonry in the lighthouse, the waves are small and distinct instead of being large and softened. Many details of the drapery are treated differently. The breastplate is smaller and does not reach so far down as in the older die; the edge of it is formed by raised lines instead of sunk ones, and there are no scrolls to it. There is a sandal on the right foot, though rather indistinctly shown, and only to be seen under the heel, and there are sandal-straps across the foot.

In 1874 new obverse and reverse dies were brought into use and the new obverse was also used with the reverse of 1873. In the obverse die of 1874 the laurel leaves are smaller and more compact, and one fewer in number. There are six berries in the wreath instead of four. There are no leaves below the rose and thistle on the cloak, which itself is shallower. The motto on the Garter reads HONI S instead of HONI SO. In the new reverse the blades of the trident are broader, the head and helmet smaller, the folds of the dress about the foot are more regular, and the lighthouse is entirely changed. Some of the halfpennies of this year were coined in London and others were coined in Birmingham, and have H below the date. The obverse and reverse dies used in London and Birmingham are not identical, and the differences are very minute; but they are easily distinguishable by the presence or absence of the small capital H.

In 1875 also, some of the coins were minted in London and others in Birmingham. The London pieces were made from similar dies to those for the London coins of the previous year, but halfpennies made in Birmingham were made from new obverse and reverse dies.

In the London and Birmingham obverses of 1874 and in the London obverse of 1875 the two laurel berries side by side in the second row are of equal size ; in the Birmingham die of 1875 these same two berries are unequal in size ; the hair is treated quite differently and other details are altered. The chief differences in the Birmingham reverse of 1875 from the London and Birmingham reverses of 1874, and the London reverse of 1875, are in the lighthouse, which has no windows, and in the folds of the dress below the waist, these folds being shallower and more numerous in the new die.

In 1876 apparently all the halfpennies were minted in Birmingham ; the dies of the Birmingham obverse and reverse of 1875 were used, but a new obverse and reverse were also employed. In the Birmingham obverse of 1875 the two laurel berries side by side in the second row are unequal in size, the lower one being much larger than the upper. In the new die of 1876 these two berries are equal in size, as they were in the 1874 obverse, but the new 1876 obverse is entirely different from the obverse of 1874 in many other respects. The new reverse of 1876 is to be distinguished by the sandal on the right foot ; it is much more plain than in the case of the 1873 reverse. I have coins with the old obverse and the old reverse with the new obverse and the new reverse, and with the old obverse and new reverse, and expect that the other possible combination, that of the new obverse and the old reverse, exists.

In 1877 both the obverse dies of 1875 and 1876 were used, combined with a new reverse die, a die which appears to have been used during this year only ; it is to be distinguished by there being no sandal on the foot.

In 1878 a new obverse and two new reverses were brought into use, and so far these are the only dies I have seen used for this year, though, I suspect, the obverse die of 1876 also was used, it having been used in the two years immediately before, that is, in 1876 and 1877, and also in the year immediately after, that is, 1879. In the new obverse of 1878 the lock of hair partly covering the ear was made more prominent, the two berries in the second row are of equal size, and the hair at the nape of the neck is short and coarse instead of

being long and fine. The two new reverses of 1878 are easily distinguished one from the other. In one there is a sandal on the foot, in the other there is not. The die without the sandal is very similar to the reverse die of 1877; it differs from it in that the lighthouse is narrower, the folds of the dress across the lap and at the back of the knee are treated differently, and the mast of the ship is more distinct and larger. In this die the figures of the date are very wide apart. I have only seen this reverse as a proof. In the other new die of 1878 the foot has a sandal, the lighthouse is very narrow, the drapery above the shield and that below the waist has been altered, as has also the ship.

In 1879 the obverse die of 1876 (having long fine hair at the nape of the neck) and the obverse die of 1878 (having short coarse hair at the nape of the neck) were used with the second reverse die of 1878 (that having the sandal on the foot).

In 1880 the 1878 obverse die was used, but with a new reverse. This reverse is similar to the second 1878 reverse (with the sandal on the foot), but differs from it in the lighthouse and in the drapery below the waist.

In 1881 the obverse and reverse of 1878 (that reverse with the sandal on the foot) were used, and in these coins the figures of the date are very thick. Two new obverses and two new reverses were introduced. Calling the obverse of 1878 No. 1 of 1881, the two new obverses will become No. 2 and No. 3 of 1881. In No. 2 obverse there are four leaves in the second row of the wreath instead of three and the hair is treated differently. No. 3 obverse is similar to No. 2 the chief differences being the size of the berries, which are larger, and the treatment of the hair, especially the hair at the nape of the neck, which is much coarser and more strongly defined. Reverse die No. 2 only differs from the 1878 reverse (*i.e.*, die No. 1 of 1881) in the treatment of the lighthouse, to which windows have been added; with this exception the dies are identical. The coins with this reverse have the figures of the date of the usual thickness. Reverse die No. 3 shows a more marked change; in this die the Union Flag on the shield is depicted in heraldic colouring. Obverse die No. 3 and

reverse die No. 3 were used at the Birmingham Mint, and these only ; the other dies were used at the London Mint.

In 1882 the halfpennies were minted in Birmingham, and from dies which appear to have been altered from the Birmingham dies of 1881.

In 1883 three obverses were in use : No. 1 is the obverse of 1878 ; the brooch is a rose, the hair at the nape of the neck is short, coarse and very distinct, and the lock of hair over the ear is markedly waved. No. 2 is the obverse of 1882 ; in it the brooch is also a rose. The hair at the nape of the neck is indistinct, and the lock of hair over the ear is but slightly waved. No. 3 is a new obverse ; in it the brooch is of seven pearls, otherwise it is very similar to die No. 2 ; that is to say, with the new obverse of 1882. The only reverse used was that of 1882.

From this year onwards obverse die No. 3 of 1883, and the reverse die of 1882 were alone used for the production of the halfpennies until the year 1895, when Brock's " Veiled Head " was brought into use. There are halfpennies of both kinds in 1895.

FARTHING.

1860. Beaded Circle.

Obverse.—VICTORIA D : G : BRITT : REG : F : D : Laureated bust of Queen to left, draped in bodice and cloak. The laurel wreath has three berries, the bodice has for a brooch a double rose seeded and barbed, the cloak is embroidered with the rose, shamrock, thistle and " garter," on which last is HONI S in sunk letters. The whole is surrounded by a beaded circle between two linear circles, the inner of which is fine, the outer is thick and forms the margin.

Reverse.—FARTHING. Seated figure of Britannia facing to right, draped in long flowing robes ; on the breast is scale armour, the right side of which is ornamented by three scrolls—the uppermost turns inwards, the lower two turn outwards. The right hand rests on a shield, on which is a device representing the Union Flag in double sunk lines. The left hand holds a trident. To the left is a lighthouse, on a rock to the right is a man-of-war. In the exergue is the date. The whole is surrounded by a beaded circle between two linear circles, as on the obverse.

There is only one obverse and one reverse of the beaded circle.

1860. Serrated Circle.

Obverse.—VICTORIA D : G : BRITT : REG : F : D : Laureated bust of Queen to left, draped in bodice and cloak. The whole design is surrounded by a toothed or serrated circle between two linear circles. In other respects the design is similar to that of the "beaded circle."

Reverse.—FARTHING. Seated figure of Britannia with shield and trident with a lighthouse to the left, and a man-of-war to the right. The whole is surrounded by a toothed or serrated circle between two linear circles. In other respects the design is similar to that of the "beaded circle."

There are two obverses of the serrated circle of 1860. In die No. 1 there are four large berries in the wreath. In die No. 2 there are five small berries, the hair in front of the wreath is in coarser locks, which are more waved than in die No. 1. There is only one reverse which differs but very slightly from the reverse of the "beaded circle."

In 1861 both obverses of 1860 were in use with the reverse of 1860.

In 1862 and the following years down to and including the year 1873, only obverse die No. 2 and the reverse die of 1860 were employed, with the exception of the years 1870 and 1871, when no farthings were struck.

In 1874, a new obverse and a new reverse die were brought into use. The bust is similar to that of die No. 2 of 1860, but the berries in the wreath were reduced from five to four and made larger and more prominent; the details of the hair were softened and parts made more wavy, the features were altered and made older looking, and the nose is more aquiline. The whole bust is brought lower down, necessitating the lowest part being removed; hence only a small part of the brooch appears, and the bust itself is smaller. The new reverse has broader blades to the trident, the head is smaller, and the figures of the date were made much smaller. The farthings for this year were minted in Birmingham, and have a small capital H below the date.

In 1875 and the succeeding years down to and including 1881, the farthings were all struck from the 1874 obverse and reverse, with

the exception of the year 1877, when no farthings were made. The farthings of 1875 and 1876 were struck at Birmingham.

In 1881, farthings were struck in London and at Birmingham. The London coins are from the 1874 dies, but the Birmingham pieces are from the 1874 obverse and a new reverse of 1881. In the new reverse the Union Flag on the shield is depicted in heraldic colouring.

In 1882 the farthings were made from the 1874 obverse and the new reverse of 1881, and were struck at Birmingham. From this year down to and including the year 1894, the farthings were all made from the same dies, no change occurring until the introduction of the new type of 1895.

Brock's veiled head of the Queen and Britannia without the lighthouse and ship continued in use until 1902, when King Edward's head was placed on the farthings.



1860. B.C.

1860. S.C.—1.

1860. S.C.—2.

1860. S.C.—3.

1860. S.C.—4.



1861.—4.

1874.

1879.

1881.

1882.



1

2

1

2

3



2

3



LIST OF THE VARIETIES OF THE BRONZE PENNY, 1860-1895.

Beaded Circle.

1860	<i>Obverse.</i>	<i>Reverse.</i>	
1	L.C.WYON on truncation ...	Treble line crosses in shield	$\frac{1}{1}$
2	"	Double line crosses in shield	$\frac{1}{2}$
<i>Serrated Circle.</i>			
1	L.C.WYON below bust ...	L.C.W. below shield ...	$\frac{1}{1}$
2	" ...	No signature... ...	$\frac{1}{2}$
3	No signature	L.C.W. below shield... ..	$\frac{2}{1}$
4	L.C.WYON on truncation. Bodice does not touch serrations.	"	$\frac{3}{1}$
5	L.C.WYON on truncation. Bodice touches serrations.	"	$\frac{4}{1}$
6	L.C.WYON on truncation. Bodice does not touch serrations.	No signature... ...	$\frac{3}{2}$
7	L.C.WYON on truncation. Bodice touches serrations.	L.C.W. below foot	$\frac{4}{3}$

*Beaded Circle.**Proofs.*

- 1 Silver.
- 2 Bronzed of No. 2.

Serrated Circle.

Nil.

Mule of Beaded and Serrated Circle.

I

1861	<i>Obverse.</i>	<i>Reverse.</i>	
1	L.C.WYON below bust ...	L.C.W. below shield. Thumb touches St. George's Cross.	$\frac{1}{1}$
2	" ...	No signature. Thumb touches St. George's Cross.	$\frac{1}{2}$
3	" ...	No signature. Thumb does not touch St. George's Cross.	$\frac{1}{3}$
4	No signature of 1860 ...	L.C.W. below shield. Thumb touches St. George's Cross.	$\frac{2}{1}$
5	L.C.WYON on truncation ...	L.C.W. below shield. Thumb touches St. George's Cross.	$\frac{3}{1}$
6	No signature of 1861 ...	L.C.W. below shield. Thumb touches St. George's Cross.	$\frac{4}{1}$
7	" ...	No signature. Thumb touches St. George's Cross.	$\frac{4}{2}$
8	" ...	No signature. Thumb does not touch St. George's Cross.	$\frac{4}{3}$

There are minor varieties of Nos. 6 and 8 with irregular date.

Proofs.

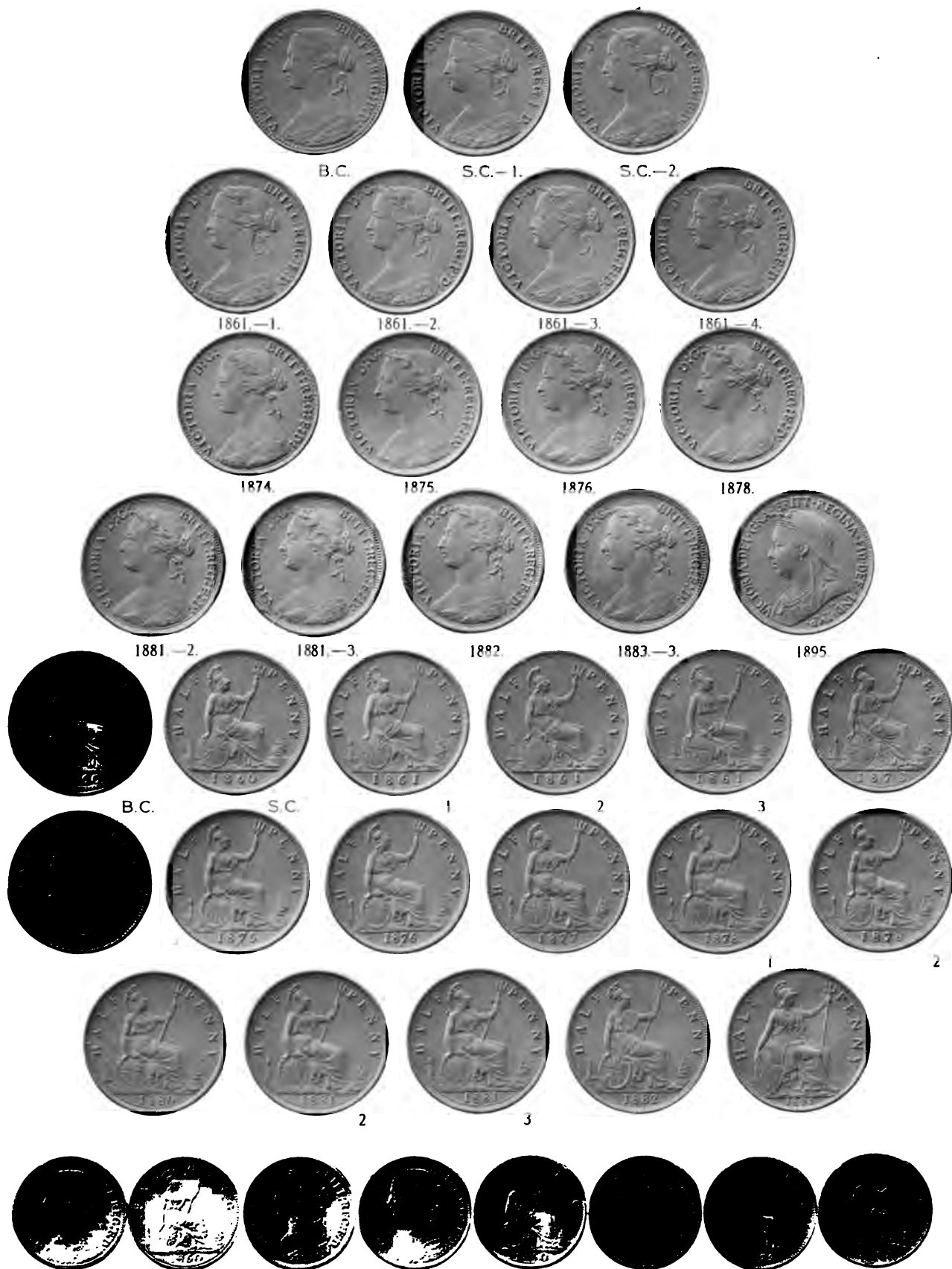
- 1 Gold.
- 2 Silver of 8 with irregular date.
- 3 Bronzed of 8 with irregular date.
- 4 Bronze of 6.

5 Bronze of 1. This is really a pattern for a penny of greater weight. Batty states only four were struck. This pattern weighs 175 grains instead of 145·83, that is 40 pieces to the pound avoirdupois instead of 48. The penny of 175 grains would be double the weight of the halfpenny, which is 87·5 grains, that is 80 pieces to the pound.

	<i>Obverse.</i>					<i>Reverse.</i>
1862	Die 4 of 1861	...	...	...	...	Die 3 of 1861.
1863	" " 1861	...	...	...	...	" " 1861.
1864	" " 1861	...	...	...	...	" " 1861.
1865	" " 1861	...	...	...	...	" " 1861.
1866	" " 1861	...	...	...	...	" " 1861.
1867	" " 1861	...	...	...	...	" " 1861.
1868	" " 1861	...	...	...	...	" " 1861.
1869	" " 1861	...	...	...	...	" " 1861.
1870	" " 1861	...	...	...	...	" " 1861.
1871	" " 1861	...	...	...	...	" " 1861.
1872	" " 1861	...	...	...	...	" " 1861.
1873	" " 1861	...	...	...	...	" " 1861.
1874	" " 1861	...	...	...	...	" " 1861.
	Die of 1874	...	...	...	...	" " 1861.
	" 1874	...	...	...	...	Die of 1874
	Die 4 of 1861	...	...	...	...	Die 3 of 1861 with H.
	Die of 1874	...	...	...	...	" " 1861 "
	" 1874	...	...	...	...	Die of 1874 "
1875	" 1874	...	...	...	...	" 1874.
	" 1874	...	...	...	...	" 1875.
	" 1874	...	...	...	...	" 1875 with H.
1876	" 1874	...	...	...	...	" 1874 "
	" 1874	...	...	...	...	" 1875 "
1877	" 1874	...	...	...	...	" 1875.
1878	" 1874	...	...	...	...	" 1875.

	<i>Obverse.</i>	<i>Reverse.</i>
1879	Die of 1874	Die of 1875.
	" 1879	" 1875.
1880	" 1879	" 1875.
	" 1879	" 1880.
1881	" 1879	" 1875.
	" 1881	" 1881 with H.
1882	" 1881	" 1882.
	" 1882	" 1881
	" 1882	" 1882.
1883	" 1881	" 1882.
	" 1882	" 1882.
1884	Pennies were coined each year down to and including 1894 from the new obverse and reverse dies of 1882.	
1895 to 1901	Brock's veiled head	Britannia without lighthouse and ship.
	No change was made until the year 1902, when King Edward's head was placed on the pennies.	

There are bronze and copper proofs of 1862 and 1863 ; bronze and bronzed proofs of 1867 ; bronze and nickel proofs of 1868 ; a bronze proof of 1876 with the 1874 obverse and 1875 reverse ; a bronze proof of 1878 ; a bronze proof of 1879 with the 1879 obverse and 1875 reverse ; a bronze proof of 1882 having the 1882 obverse and 1881 reverse, and bronze proofs of 1885 and 1887.



LIST OF THE VARIETIES OF THE BRONZE HALFPENNIES, 1860-1895.

Beaded Circle.

1860	<i>Obverse.</i>	<i>Reverse.</i>	
1	Six berries in wreath ...	Sunk lines in shield... ..	
<i>Serrated Circle.</i>			
1	Seven berries in wreath ...	Raised lines in shield ...	$\frac{1}{1}$
2	Four berries in wreath ...	" ...	$\frac{1}{2}$
1861			
1	Midribs one raised line, short hair at nape of neck.	LC W on rock	$\frac{1}{1}$
2	"	No scrolls to breastplate ...	$\frac{1}{2}$
3	"	Three scrolls to breastplate...	$\frac{1}{3}$
4	Midribs, two sunk lines ...	LC W on rock	$\frac{2}{1}$
5	" ...	Three scrolls to breastplate...	$\frac{2}{3}$
6	No midrib in top leaf. Long fine hair at nape of neck.	LC W on rock	$\frac{3}{1}$
7	Midribs, one raised line. Very long curled and fine hair at nape of neck.	No scrolls to breastplate ...	$\frac{4}{2}$

	<i>Obverse.</i>					<i>Reverse.</i>				
1862	Die 4 of	1861	...	...	...	Die 3 of	1861.			
1863	" "	1861	...	...	...	" "	1861.			
1864	" "	1861	...	...	...	" "	1861.			
1865	" "	1861	...	...	...	" "	1861.			
1866	" "	1861	...	...	...	" "	1861.			
1867	" "	1861	...	...	...	" "	1861.			
1868	" "	1861	...	...	...	" "	1861.			
1869	" "	1861	...	...	...	" "	1861.			
1870	" "	1861	...	...	...	" "	1861.			
1871	" "	1861	...	...	...	" "	1861.			
1872	" "	1861	...	...	...	" "	1861.			
1873	" "	1861	...	...	...	" "	1861.			
	" "	1861	...	...	...	Die of	1873.			
1874	Die of	1874	...	...	...	" "	1873.			
	" "	1874	...	...	...	" "	1874.			
	" "	1874	...	...	...	" "	1874 with H.			
1875	" "	1874	...	...	...	" "	1874.			
	" "	1875	...	...	...	" "	1875 with H.			
1876	" "	1875	...	...	...	" "	1875 with H.			
	" "	1875	...	...	...	" "	1876.			
	" "	1876	...	...	...	" "	1876.			
1877	" "	1875	...	...	...	" "	1877.			
	" "	1876	...	...	...	" "	1877.			
1878	" "	1878	...	...	...	Die 1 of	1878.			
	" "	1878	...	...	...	Die 2 of	1878.			
1879	" "	1876	...	...	...	" "	1878.			
	" "	1878	...	...	...	" "	1878.			
1880	" "	1878	...	...	...	Die of	1880.			
1881	" "	1878	...	...	...	Die 2 of	1878, thick figures in			
	Die 2 of	1881	...	...	...	" "	1881.			[date.
	Die 3 of	1881	...	...	...	Die 3 of	1881 with H.			
1882	Die of	1882	...	...	...	Die of	1882 with H.			
1883	" "	1878	...	...	...	" "	1882.			
	" "	1882	...	...	...	" "	1882.			
	" "	1883	...	...	...	" "	1882.			
1884	Halfpennies were coined each year down to and including 1895 from the new obverse die of 1883 and from the reverse die of 1882.									
1895	Die of	1883.	Brock's veiled			Die of	1882.	Britannia with-		
to			head.					out lighthouse		
								and ship.		
1901	No further change was made until the year 1902, when King Edward's head was placed on the halfpennies.									

LIST OF THE VARIETIES OF THE BRONZE FARTHING, 1860-1895.

Beaded Circle.

1860	<i>Obverse.</i>	<i>Reverse.</i>
	Three berries in wreath	Sunk lines in shield.
<i>Serrated Circle.</i>		
1	Four berries in wreath	Sunk lines in shield.
2	Five berries in wreath	" "
1861		
1	Four berries in wreath	" "
2	Five berries in wreath	" "
1862	Die 2 of 1860	Die of 1860.
1863	" " 1860	" 1860.
1864	" " 1860	" 1860.
1865	" " 1860	" 1860.
1866	" " 1860	" 1860.
1867	" " 1860	" 1860.
1868	" " 1860	" 1860.
1869	" " 1860	" 1860.
1872	" " 1860	" 1860.
1873	" " 1860	" 1860.
1874	Die of 1874	" 1874.
1875	" 1874	" 1874.
1876	" 1874	" 1874.
1878	" 1874	" 1874.
1879	" 1874	" 1874.
1880	" 1874	" 1874.
1881	" 1874	" 1874.
	" 1881	" 1881.
1882	Farthings were coined each year down to and including 1894 from the obverse die of 1874 and the reverse die of 1874.	
1895 to	Brock's veiled head	Britannia without lighthouse and ship.
1901	No further change was made until the year 1902, when King Edward's head was placed on the farthings.	

There is a bronze proof of the beaded circle and of the serrated circle (four berries in wreath) of 1860. Montagu gives gold, silver, bronze and bronzed proofs of 1861. There are proofs of 1862, 1863, 1865, 1867, 1868, 1875, 1878, 1882, 1885 and 1891. Those of 1863 and 1878 are copper ; that of 1867 is bronzed.



A HOARD OF STATERS AND "GOLD BULLETS,"
RECENTLY DISCOVERED IN FRANCE:—WITH
SPECIAL REFERENCE TO THE ANCIENT
BRITISH STATERS OF THE TYPE OF EVANS,
PLATE B, No. 8.

BY BERNARD ROTH, F.S.A., *Vice-President*,

IN November, 1905, a large hoard of about 400 gold coins was discovered in the Department La Marne between Rheims and Châlons-sur-Marne: the exact spot has been kept a secret for local reasons. Monsieur Adrien Blanchet gives a short account of this find in the *Revue Numismatique*, 1906, page 76. One-half of the hoard consisted of staters of the Morini, amongst which were several coins with remnants of the head of the prototype on the obverse and with the disjointed horse on the reverse: the average weight of the staters was 6·50 grammes (100·3 grains) with a gold purity of rather less than 18 carats (French; *titre* of 700/1,000). The other half of the hoard was composed of about 200 globular gold staters marked with a small cross on one face, somewhat similar to those which had been previously found at Sainte-Preuve, Aisne, not far from Rheims. The average weight of these globular staters is 7·30 grammes (112·65 grains) and the gold purity about 17 carats (French; *titre* of 685/1,000). As their weight is heavier and their gold purity less than those of the cupped staters with the debased head and the disjointed horse, M. Adrien Blanchet concludes that possibly they had an equal currency in those times.

In the *Revue Numismatique*, 1907, the same writer contributes a paper on "Unpublished Gaulish Coins" and describes as No. 7 the following coin (page 467):—

Obverse.—A cross with equal arms, each terminating in three lines, which diverge and end at the edge of the coin, forming triangles.

Reverse.—Plain convex, except for a small torque with very divergent extremities ending in pellets, near the edge of the coin, which is globular and of yellow gold weighing 7 grammes (108·01 grains); in the Cabinet of Dr. L. Capitan of Paris.¹

M. Blanchet illustrates the coin in Plate XIV, Fig. 7; he considers the cross is characteristic and the torque very distinct and not to be mistaken for the letter C: he adds that globular staters of the same type were found pretty frequently some fifty years ago at La Plante Bardou at Moinville (Commune of Maincy, some 2 kilometres ($1\frac{1}{4}$ miles) to the east of Melun). Sir John Evans has kindly referred me to *The Archæology and Prehistoric Annals of Scotland*, by Daniel Wilson, published in 1851. On page 520 the following is to be found:—

"The most primitive form of Scottish coinage is evidently the simple gold pellets usually marked by a cross in relief. The two examples engraved here, the size of the originals, are from the remarkable hoard discovered at Cairnmuir, Peeblesshire, in 1806. They resemble two segments of a sphere irregularly joined and appear to have been cast in a mould. Forty of the same simple class of early



currency were found, along with what appears to have been a gold funicular torc, in the parish of Dolphinston, Lanarkshire, and marked, like those of Cairnmuir, with the impression of 'a star.' Little hesitation can be felt in assigning to the same class a discovery in the parish of Dunnichen, Forfarshire, of 'a number of small gold bullets which seem to have been the current coin of the times when they were formed.'"

A short time ago I purchased from Mr. A. H. Baldwin, two specimens of the cupped staters and one bullet-shaped stater from this

¹ A very similar coin is in the British Museum, except that there is no torque on the reverse.

recent French hoard, the subject of my paper to-night. Owing to the same gentleman's kindness, I am able to exhibit ten more cupped staters and fifteen more bullet-shaped staters from the same hoard, which I shall now proceed to describe.

The twelve cupped or ordinary shaped staters correspond very closely with the description given of Evans, Plate B, No. 8 in *The Coins of the Ancient Britons*, viz. :—

Obverse.—Plain and convex.

Reverse.—Disjointed, tailless horse to the right, a pellet below ; above the arms of Victory, pellets, etc. The exergue is ornamented with the zig-zag pattern, viz.: an exergual line with the space below divided into triangular compartments with pellets in each.

Frequently the whole device is surrounded by a beaded circle (see Ruding, Plate I, 1, 3 and 4). Sir John Evans subdivides the coins of this type into two classes, one represented by Ruding, Plate I, 1, 3 and 4, and the other by that given on his plate (Plate B, 8) and in the *Numismatic Chronicle*, vol. i, Plate II, 2. The horses on those of the first have frequently a sort of spurs, something like those on a game-cock, projecting from their hind legs ; or hair-like lines about the fetlock-joints, as if they were of the cart-horse breed. Eight of the twelve specimens exhibited to-night are of this first class and show the game-cock spurs very distinctly, Plate, Figs. 1, 2, 3, 4, 7, 8, 10 and 11 ; the remaining four would probably show the same peculiarity, if the extremities of the hind legs were not off the coin. Nearly all the twelve coins show more or less distinctly a peculiar object behind the horse which may represent the detached tail : it consists apparently of two three-spiked locks of hair joined unevenly end on end at their roots ; it is also somewhat similar to the classic form of Jupiter's thunderbolt : below this peculiar object, which is very well seen in No. 1, Plate, Fig. 1, is an oval ring ornament, and there is another similar oval ring ornament in front of the horse's head. It is an interesting fact that the reverses of Nos. 2, 4 and 7, Plate, Figs. 2, 4 and 7, are from the identical die. The feet of the horse are very peculiar and consist of hooks with the points directed upwards

and forwards: this is well seen in Nos. 4 and 8, Plate, Figs. 4 and 8.

Below is a table of the weights of the twelve specimens exhibited:—

No.	1,	98·1	grains.	(In my Cabinet.)
"	2,	98·1	"	
"	3,	98·0	"	
"	4,	97·7	"	(In my Cabinet.)
"	5,	97·6	"	
"	6,	97·6	"	
"	7,	97·6	"	
"	8,	97·5	"	
"	9,	97·5	"	
"	10,	97·4	"	
"	11,	97·3	"	
"	12,	96·2	"	

giving an average weight of 97·5 grains; the numbers correspond to the figures in the Plate. This is considerably heavier than the usual weight of 90 grains stated by Sir John Evans, whose heaviest coin is given as 95 grains for one of the first class which was found in Elhām in Kent. Sir John Evans mentions that specimens of the first class have also been found at Folkestone, Godalming and Colchester: and coins of both classes near Ryarsh in Kent: he adds that similar coins are of not infrequent occurrence on the Continent, mostly, if not always of the first class. They are said by Lelewel to be found in the Belgic Territory (Plate III, 36) and are engraved as Gaulish in the *Revue Numismatique*, vol. ii, p. 82, Plate III, 1, though reference is made to Gough's Camden. Others are engraved by Lambert, Plate VI, 3 and 4; Plate XI bis 11; but the place of finding is not given.

We will now proceed to the description of the bullet-shaped staters, sixteen in number, out of the 200 found in the hoard. Daniel Wilson's words cannot be improved upon; "they resemble two segments of a sphere irregularly joined and appear to have been cast in a mould." They are flattened and measure almost exactly half an inch in their greatest diameter, which includes the irregular ridge separating the two segments of the sphere, and are slightly more than $\frac{1}{4}$ -inch in their other diameter, taken from the centres of the half

spheres. One-half of the sphere is smooth, except for accidental irregularities due probably to air bubbles, while the other half of the sphere has a more or less distinct small cross exactly in the centre of the convexity. In careful examination it will be found in some specimens that the arms of the cross are not short, but really extend as fine lines up to the thick ridge separating the segments of the sphere : so that the crosses are really double the size they appear to be on casual inspection : this large cross is easily made out in Nos. 1, 3, 4, 5 and 8 ; Plate, Fig. 13. The gold of these bullet-shaped staters appears to be good and the following table gives their weights :—

No.	1, 112·8 grains.	
„	2, 112·7	„ Plate, Fig. 14.
„	3, 111·9	„
„	4, 111·8	„ (In my Cabinet), Plate, Fig. 13.
„	5, 111·3	„
„	6, 111·3	„
„	7, 111·0	„
„	8, 111·0	„
„	9, 110·7	„
„	10, 110·6	„
„	11, 110·4	„
„	12, 109·5	„
„	13, 109·2	„
„	14, 109·2	„
„	15, 109·1	„
„	16, 107·3	„

With an average weight of 110·6 grains.

Several interesting questions are raised by a consideration of this French hoard. In the first place, is Sir John Evans justified in placing the Staters, Evans, B. 8 amongst the Ancient British series? The staters I have described are so exactly similar to those attributed to the Ancient Britons (the only difference being the presence of the object resembling Jupiter's thunderbolt behind the horse in the French coins) that we must conclude that they were executed by the same skilled workmen ; as there are three specimens which bear marks of being from the same die on the reverse, it is very probable they were struck in the locality where they were found. I have here a reputed Gaulish coin,

although its provenance is unknown ; it belongs to the Morini type (Plate, Fig. 15). The obverse is plain, except the slight flat boss in the centre and the depressed ridge round three-fourths of its circumference. The reverse has exactly the same tailless horse, arms of Victory, oval ring ornaments, and Jupiter's thunderbolt object behind the horse, as in the specimens shown to-night, the only difference being in the exergue ; below the beaded exergual line, instead of the zigzag arrangement, we have a series of open crescents placed alternately with the convexities upwards and downwards ; the horns of the crescents end in pellets, and within the cavity of each crescent is a larger pellet ; another, although slighter, difference is that the feet of the horse are hooked in the contrary direction, viz., with the points of the hooks directed backwards instead of forwards as in the French specimens exhibited to-night ; the weight of the coin is 94.4 grains. In my humble opinion, the evidence is sufficiently strong to induce Sir John Evans to relegate his Evans B. 8 to the Gaulish series, and no longer to include them in that of the Ancient Britons. The numerous specimens which have been found in England have most probably been imported from Gaul, where they were coined ; most of these English specimens have been found not very far from the coast.

In the next place, is there any relation to be deduced between these cupped staters and the bullet-shaped staters by their being found together in the same hoard ? It has been suggested that the cupped staters have been struck from these identical bullet-shaped staters, but I think a reference to the tables of weights I have given will prove that this is a mistake. The heaviest bullet stater is 112.8 grains and the lightest 107.3 grains, with an average weight of 110.6 grains ; whereas the two heaviest cupped staters weigh only 98.1, and the lightest 96.2 grains, with an average weight of 97.5 grains : it is impossible to believe that by the process of striking the bullet-shaped staters should have each lost an average of 15.3 grains. At the same time I think it is very possible, indeed very probable, that these cupped staters with plain obverses were struck from similar bullet-shaped gold casts of smaller weight. In every one of these cupped staters, the obverse exhibits a large plain low boss with depressed ridge more or

less distinct surrounding it, which is evidently one of the globular half spheres flattened out by the process of striking the cupped stater. Sir John Evans says :—

“The obverse of these coins has in all cases been struck from dies having a concave recess (occasionally flattened or with a band across its centre) and with a flat rim round it. This rim has frequently had some indentations in it, which have sometimes almost the appearance of a legend when they happen to appear on the coins. On some, the objects assume the form of S-shaped ornaments somewhat resembling the locks of hair at the back of the head of the early coins and of which they are possibly imitations.”

This rim with peculiar indentations is to be observed in several of these French coins, especially Nos. 1, 3, 4, 7 and 11 (Plate, Figs. 1, 3, 4, 7 and 11), but I believe Sir John Evans is mistaken in his theory of their production “from wear either of the die or coin” by which the bust had become more or less obliterated. It is more probable that they are the result of the flattening out of the globular half spheres with the ridge left by the mould in which they were cast. I believe that all those staters which have a plain convex obverse have been struck by one *engraved* die only, viz., a figured reverse die, while the gold bullet was lying in some plainly hollowed receptacle or plain die to prevent its slipping away during the striking.

Note.—Sir John Evans, after reading my manuscript, writes :—

“As to the new views that you bring forward we are not in accord. I do not see how such coins as B. 8 could have been struck from one die only and not two. As to their not being British, but Gaulish, I regard them as being *both*. They were, I think, current among the Belgic tribe on both sides of the Channel, as was the case with some coins of other types. I have, I think, recorded just on forty English localities in which they have been found—see Supplement, as well as *Ancient British Coins*—and I have seen a hoard, I think from Essex, in which there were some thirty of this B. 8 type.”

I have reserved to the last for consideration the extraordinary fact of these cross-marked gold bullets having been found in Scotland in several localities scores of miles apart. It is impossible to believe that these globular staters, so exactly similar to the French ones, were cast in Scotland, and we can only suppose that they were taken there, either

as the result of some piratical raid on the northern coast of France, or that even in those early centuries a greater civilisation existed than is usually believed in Scotland, and that its inhabitants had commercial dealings with the inhabitants of Gaul.

The remaining figures on the Plate are given for the purpose of comparison with these French staters.

Fig. 16 is a stater in the cabinet of our President, Mr. P. Carlyon-Britton, weighing 90.4 grains; it is apparently identical with the French specimens, except that the horse's feet consist of hooks directed *backwards* instead of forwards.

Fig. 17 in my cabinet, weighs 90 grains, and is undoubtedly British (see Evans B. 10); the obverse is almost perfectly plain and the reverse has a similar horse to that on the French staters, but it has a triple tail and its legs have no cock's spurs, with the hoofs more naturally shaped and not hooked forwards; instead of a globule under the horse there is an eight-rayed wheel.

Fig. 18 is a Gaulish stater in my cabinet which is attributed (*sans aucune certitude*) by Monsieur Adrien Blanchet to the Remi, and is figured No. 383 in his *Traité des Monnaies Gauloises*, 1905. On the obverse (convex) is the very degenerate head with the wreath too near the edge of the coin to allow of the locks of hair being visible; the cross bandlet, which is bifid, ends towards the right (face) in a solid semicircle terminating in a ring ornament from which diverge two straight lines, resembling the open bills of a bird with curved neck; besides the gorget below, the face is represented by two joined open crescents with three ring ornaments in front. The reverse (concave) corresponds exactly to the reverse of Fig. 17, which is British; it weighs 90.5 grains.

Figs. 19 and 20 are British staters, in Mr. P. Carlyon-Britton's cabinet, of the Evans B. 6 type and weigh 76.4 and 44.9 grains respectively. The exergual line with zigzag and pellets pattern below it, is almost exactly similar to that on the French staters described above. Fig. 19 is of silver and Fig. 20 of bronze.

In conclusion I have to tender my best thanks to Sir John Evans for referring me not only to Mr. Daniel Wilson's book, but also to the *Revue Numismatique* for 1906 and 1907.

SOME ROMAN BRASS COINS FOUND AT LINCOLN.

BY NATHAN HEYWOOD.

IN pre-Roman times, when the British Coritani established their settlement on the site of the present City of Lincoln, they named it Lind or Lindun-coit, *i.e.*, the woody hill in the waters, a felicitous description of its then appearance.

Following these the Romans, in the first century, placed their fortified camp in the same position, possibly during the campaign of Aulus Plautius in the reign of Claudius A.D. 43. But when it was created one of the nine British *Coloniae*, probably by Hadrian, it was duly fortified, received the name of Lindum Colonia, and a permanent garrison of veterans, who, as both soldiers and settlers, were allowed to hold lands on condition of rendering military service when called on. Lindum Colonia was only three military stages south of Eboracum, where was stationed the VI or IX Legion, and both were in the Province of Flavia Caesarensis. The enclosing walls extended about 1,300 feet from east to west and 1,200 feet from north to south, and there were at least four gates—that to the north, the Newport gate, being the most important; adjoining this, a little to the east, there existed until comparatively recent date some walls of Roman masonry, traditionally known as “the Mint.” There is, however, no evidence of any mint previous to the end of the ninth century, but coins were undoubtedly fabricated here, as contemporary Roman coin moulds have occasionally been discovered.

Bailgate, where the coins now to be described were found, is close to the Newport gate, and in 1878 and subsequent years excavations revealed the remains of an important building of Roman fabric extending 283 feet in length by 236 feet in width, included in which were the

bases of nineteen pillars ranged in a straight line : probably from its magnitude this was the Basilica.

The Roman stratum is generally from 9 to 12 feet below the present street level, and at this point, Bailgate, it is from 8 to 9 feet.

At this depth Roman coins are readily discoverable in considerable numbers whenever the ground is disturbed.

The Saxon Chronicle says, under A.D. 418, "The Romans collected all the treasures that were in Britain, and some they hid and some they carried with them to Gaul." After their departure and during the miserable years of the early Saxon invasions, the Roman Lindum was destroyed and left desolate ; subsequently the Saxon settlement arose on the lower ground nearer the streams ; and about the tenth century the Norse or Danish invaders appear to have refounded it as a fenced City and stronghold, as is testified by the frequent use of Gal or gate for street, and other Scandinavian names. At the coming of William I. the city was a Danish municipality, and during the Saxon and Danish times, Lincoln undoubtedly possessed a very active mint.

Recently, by a kindly presentation, I have come into possession of a parcel, or perhaps a small find of Roman coins discovered at Bailgate, Ermine Street, Lincoln, in the year 1878, by workmen engaged in executing some city improvements near the ancient gate on the North Road. The coins were loosely dispersed amongst the remains of buildings and roadway at a depth of about 8 feet below the level of the present surface, and were separately picked up. The series consists of about ninety-four coins in first, second and third brass.

Probably the true reason why the ground is so thickly strewn with coins of Roman mintage may be due to the unnoticed breaking up and scattering by plough or spade of the many small hoards that would naturally exist in the deserted buildings of an enclosed and once populous town.

The range in time of the coins is very extensive, being from Drusus, Senior (struck under Claudius A.D. 41-54) to Valens, A.D. 364-378, or over three centuries. As might be expected, considering the long period of circulation, the coins exhibit signs of wear previous to their deposit, and none of them are in sufficiently good

condition to admit of illustration. The following table shows the distribution of the coins, which are third brass, except where indicated to the contrary :

Drusus (1st Æ)	...	...	...	1
Vespasian (1st Æ)	...	...	...	1
Trajan (2nd Æ)	...	...	...	1
Septimius Severus (1st Æ)...	...	...	...	1
Gallienus	...	...	...	1
Postumus	...	...	...	3
Victorinus	...	...	...	1
Tetricus	...	...	...	4
Constantine I.	...	...	...	12
Constantine II.	...	..	...	4
Constans	...	...	...	6
Magnentius ..	...	...	...	1
Julianus II.	...	...	...	1
Valentinianus	...	...	...	2
Valens	...	...	...	2
Uncertain	...	...	...	53
Total				94

In the list which follows I have endeavoured to describe the coins, so far as their condition permits :

Drusus. 38 B.C.—9 B.C.

Obverse.—NERO CLAVDIVS DRVSVS GERMANICVS IMP=Bare head of Drusus to left.


Reverse.—TI CLAVDIVS CAESAR AVG PM TRP IMP P.P. S.C.=
Drusus seated to left holding a palm, at his feet, shields, helmets, cuirass, spear, etc.

Vespasianus. A.D. 69–79.


Obverse.—IMP CAES VESPASIAN AVG PM TR .P. PP COS III.=
Laureated head of Vespasian to right.

Reverse.—SALVS AVGVSTA=Salus seated to left.

Exergue.—S. C.

Trajanus. A.D. 98-117.*Obverse.*—Inscription undecipherable=Head of Trajan to right.*Reverse.*—Inscription undecipherable.*Septimius Severus.* A.D. 193-211.*Obverse.*—Inscription undecipherable. Head of Septimius Severus to right.*Reverse.*—Inscription undecipherable. A trophy between two captives.*Gallienus.* A.D. 253-268.*Obverse.*—GALLIENVS=Head of Gallienus to right.*Reverse.*—Inscription undecipherable=A military figure standing.*Postumus.* A.D. 258-267.*Obverse.*—IMP. POSTVMVS AVG=Head of Postumus to right.*Reverse.*—Inscription undecipherable=A military figure standing.*Victorinus.* A.D. 265-267.*Obverse.*—IMP VICTORINVS AVG=Head of Victorinus to right.*Reverse.*—SALVS AVG=A female figure standing.*Tetricus.* A.D. 267-272.*Obverse.*—IMP TETRICVS=Head of Tetricus to right.*Reverse.*—Inscription undecipherable.*Constantinus I.* A.D. 337-340.*Obverse.*—DN CONSTANTINVS PF AVG=Head of Constantine to right.*Reverse.*—Inscription undecipherable=Two winged figures standing on either side of an altar, holding a shield.*Obverse.*—DN CONSTANTINVS PF AVG=Head of Constantine to right.*Reverse.*—Inscription undecipherable=An altar surmounted by an orb.*Obverse.*—DN CONSTANTINVS PF AVG=Head of Constantine to right.*Reverse.*—Inscription undecipherable=Two soldiers holding a banner inscribed 

Obverse.—DN CONSTANTINVS PF AVG=Head of Constantine to right.

Reverse.—Inscription undecipherable=Two figures holding a banner inscribed 

Exergue.— P. CON.

Obverse.—DN CONSTANTINVS PF AVG=Head of Constantine to right.

Reverse.—Inscription undecipherable=The wolf and twins.

Obverse.—DN CONSTANTINVS PF AVG=Head of Constantine to right.

Reverse.—GENIO AVGVSTI=A female figure standing.

Obverse.—DN CONSTANTINVS PF AVG=Head of Constantine to right.

Reverse.—VICTORIAE AVGVSTORVM=Two Victories, each holding a wreath.

Obverse.—DN CONSTANTINVS PF AVG=Head of Constantine to right.

Reverse.—GLORIA EXERCITVS=Two soldiers holding a banner inscribed Y

Obverse.—DN CONSTANTINVS PF AVG=Head of Constantine to right.

Reverse.—SECVRITAS=Victory holding a wreath.

Obverse.—CONSTANTINOPOLIS=Head of Constantine helmeted.

Reverse.—Inscription undecipherable=Victory holding a shield.

Constantinus II. A.D. 337-340.


Obverse.—CONSTANTINVS IVN. N.C.=Head of Constantine the Younger to right.

Reverse.—GLORIA EXERCITVS=Two soldiers standing on either side of a trophy.

Obverse.—CONSTANTINVS IVN. N.C.=Head of Constantine the Younger to right.

Reverse.—GLORIA EXERCITVS=Two soldiers standing, each holding a standard.

Obverse.—CONSTANTINVS IVN. N.C.=Head of Constantine the Younger to right.

Reverse.—GLORIA EXERCITVS=Two soldiers standing supporting a banner inscribed. 

Constans. A.D. 337-350.


Obverse.—DN CONSTANS=Head of Constans to right.

Reverse.—VICTORIAE=Two figures standing.

Obverse.—CONSTANS PF AVG=Head of Constans to right.

Reverse.—VICTORIAE=Two figures standing.

Obverse.—DN CONSTANS PF AVG=Head of Constans to right.

Reverse.—GLORIA EXERCITVS=Two soldiers standing, supporting a banner inscribed 


Obverse.—CONSTANS PF AVG=Head of Constans to right.

Reverse.—Inscription undecipherable=Two figures standing.

Exergue.—PLC.

Magnentius. A.D. 350–353.

Obverse.—DN MAGNENTIVS PF AVG=Head of Magnentius to right.

Reverse.—Inscription undecipherable = A  Ω

Julianus II. A.D. 360–363.

Obverse.—DN IVLIANVS PF AVG=Head of Julianus II. to right.

Reverse.—PAX AVGVSTI=Peace standing holding a branch.

Valentinianus I. A.D. 364–375.

Obverse.—DN VALENTINIANVS PF AVG=Head of Valentinianus to right.

Reverse.—SECVRITAS REIPVBLICAE=Security standing.

Obverse.—DN VALENTINIANVS=Head of Valentinianus to right.

Reverse.—GLORIA ROMANORVM=A soldier standing.

Exergue.—P. CON.

Valens. A.D. 364–378.

Obverse.—DN VALENS PF AVG=Head of Valens to right.

Reverse.—SECVRITAS PVBLICA=Security standing.

Obverse.—DN VALENS PF AVG=Head of Valens to right.

Reverse.—GLORIA ROMANORVM=A soldier holding a captive.

The absence of coins of Hadrian and the Antonines is noteworthy, and somewhat remarkable.

My acknowledgments are due to Mr. R. D. Darbishire, F.S.A., for his assistance in deciphering many of the specimens.



FIG. A.



FIG. B.

ANTIQUITIES FOUND IN YORK.

A LEADEN CROSS BEARING A STYCA IMPRESSION AND OTHER ANTIQUITIES FOUND IN YORK.

By G. A. AUDEN, M.A., M.D.

IN spite of the long Anglo-Danish occupation of York, the number of antiquities discovered in the City which can definitely be ascribed to this period is surprisingly small.

From time to time, however, building operations in the neighbourhood of Castlegate and the modern Clifford Street have brought to light a number of characteristic objects. The most notable find of objects belonging to this period was made in the autumn of 1906 during excavations for widening and rebuilding a narrow street known as Nessgate, which opens into the street mentioned above. Several of the antiquities found have not been previously reported in England and chief amongst these may be mentioned a bronze chape from a sword scabbard. It is ornamented with an open zoömorphie interlacing design which shows traces of the original gilding. The design shows the feet of an animal, and terminates on each side in a much conventionalised head whereby the metal was fixed to the material of the scabbard. See illustration, Figure A. A chape which has a close resemblance to this was found at Rorvik in Norway and is figured by Rygh.¹ Dr. Sophus Müller has expressed his belief that the York specimen may be either of Danish or Norwegian workmanship.

In order to obtain an approximate date for the objects found it was necessary to examine the series of antiquities belonging to the Anglo-Danish period preserved in the York Museum. Amongst those found on the site of the Public Library in Clifford Street in 1884-5 were two stycas and a small leaden cross almost equal-limbed and pierced at the base of the longer arm or shaft with a circular hole for

¹ *Norske Oldsager*, vol. ii, Figure 516.

suspension. The measurements of the cross, which is shown in the illustration, Figure B, are as follows :—

Length of shaft	...	...	5·2	cm.
Width of arms	...	...	4·1	„
Breadth of parts	...	...	1	„
Thickness	...	...	·02	„

The stycas proved to belong to Eanred (808–841) and Æthelred II. (841–850).

(a) +EANRED REX. Cross.

+FORDRED. Cross.

No. 142, *British Museum Catalogue*, vol. i, p. 151.

(β) +EDILRED X. Cross within a circle of dots.

+MOINE ? Pellet within a small circle of dots.

Cf. No. 527, *British Museum Catalogue*, vol. i, p. 177.

It is, however, upon the cross that the chief interest centres, for on examination it at once became evident that by way of central ornamentation a styca (not the die) had been sharply impressed upon it. Below this impression, upon the shaft, there is a second impression, which, although not very distinct, most fortunately preserves the reverse of the coin.

The central impression is wonderfully clear, and proves that the coin used was a styca of Osberht, King of Northumbria, *circa* 849–867. The impression of the reverse is light, but the name of the moneyer can be made out. The fact that the legends were retrograde upon the coin renders the impressions upon the cross more easy to read. Mr. Carlyon-Britton, to whom I am indebted for the identification of the legend, reads it thus :

OSBREHTRCX.

Reverse.—+EANVVLE.

It is thus comparable to the coin numbered No. 664, *British Museum Catalogue*, vol. i, p. 187. Although the presumptive evidence is in favour of the use of the cross in its Christian significance, and that it therefore belonged to a Northumbrian Christian, it is not necessarily certain, for the cross and even the crucifix seem to have been worn as amulets by the Norse traders. In like manner, many

of them accepted baptism without actually embracing Christianity, in order to facilitate their trade relations with the Christian communities with which they came in contact. Thus silver crucifixes have been found in Norway, *e.g.*, at Hoer (Bergen Museum) and in Senjen, an island within the arctic circle, which must be referred to the pre-Christian period.¹ Cross-like pendants are also known.² Mention may also be made in this connection of the silver cross which, together with the representation of a boar, adorned the helmet found by Bateman at Monyash, Derbyshire.³

¹ *Norges Indskrifter med de yngre runer; Runerne paa en Sølvring fra Senjen.* Sophus Bugge og Magnus Olsen. Christiania, 1906, p. 2, Fig. 4.

² Sophus Müller, *Ordning av Danmarks Oldsager, Jernalderen*, 665.

³ *Catalogue Bateman Collection*, p. 242.

A HOARD OF ENGLISH COINS FOUND IN SWITZERLAND.

BY BERNARD ROTH, F.S.A., *Vice-President.*

WHILE spending this summer vacation at Brunnen, on Lake Lucerne, I heard by chance that my landlord, Mr. Fridolin Fassbind, of the Waldstaetterhof Hotel, had some old English coins which had been found in the neighbourhood.

It appears that about thirty years ago a hoard of upwards of one hundred reputed English coins was found in a field near the main road passing through Morschach, a charmingly situated hamlet some 675 feet above the lake of Lucerne, close to Brunnen. As far as I could ascertain, only five of the coins have escaped destruction, nearly the whole hoard having been melted down for the sake of the metal. Mr. Fassbind possesses three specimens, which he kindly lent me to exhibit this evening, and the proprietor of the Roessli Hotel at Brunnen has the other two specimens, which I inspected. Mr. Fassbind's coins are :—

- (1) A groat of Edward III., of the London mint, with annulets.
- (2) A half-groat of Edward III., also of the London mint, with annulets ; and
- (3) A penny of Richard II., of the York mint, with lis on the king's neck. The coins are in a fairly good state of preservation. The other two specimens I examined at the Roessli Hotel are a London groat of Edward III. (now mounted, unfortunately, as a brooch) and a York penny of Richard II.

The question arises, how did these early English coins come to be hidden near a small village above the lake of Lucerne. The most

probable explanation is that they belonged to some English soldiers who were in the pay of the Dauphin of France when he invaded Switzerland in the year 1444. The celebrated battle of St. Jacob on the Birs was fought near Bâle on August 26th of that year. The Dauphin had 40,000 troops, which included many English mercenaries: they were attacked by 1,600 Swiss, who fought very heroically, leaving 1,300 of their own men dead on the field of battle. The French commander was so disgusted that he forthwith returned to France. The anniversary of this battle is still celebrated annually in Switzerland with great fêtes. I cannot find any reference to this Swiss hoard of English coins in the *Numismatic Chronicle*, or elsewhere.

			
l	o	one maras	klæ quinq;
ii	i	etnis februi	klæ; affim
iii	vi	ena maras	none infans
iiii	ii	idena mīras	klæ bimf
v	v	ene februi	ldas quinos
vi	iiii	etne mīras	klæ tribus
vii	iii	q uacuor dono	mīras klæ sex
viii	vi	onas maras	esse quaternos
ix	v	exoe kalendæ	maras septem
x	iiii	ldas februi	lntrib; constans
xi	iii	q uacane mīras	none massim
xii	ii	one maras	klæ inquadris
xiii	vi	q uacuor idas	februi septem
xiiii	v	klæ alende mīras	eam quinos
xv	iiii	idena mīras	klæ imino
xvi	iii	epō februi	ldas quacuor
xvii	vi	q uacane kalende	mīras duobus
xviii	v	q uacane mīras	klæ quinis
xix	iiii	ridue nonas	mīras interis

			
l	o	one caprelas	Notum quinos
ii	i	o exone klæ	affim deprimunt
iii	vi	ldas aprelas	eam sexis
iiii	ii	none quacane	Namq; dipendio
v	v	klæ undene	Ambuunt quinos
vi	iiii	q uacuor idas	Capiunt ternos
vii	iii	klæ etne	Titulane senos
viii	vi	q uacuor dono	Cubane inquadris
ix	v	septene idas	Septem elagunt
x	iiii	ene kalende	Sortuunt ternos
xi	iii	ene septene	Donane affim
xii	ii	ridue nonarum	Porto quaternis
xiii	vi	ouene notane	Namq; septenis
xiiii	v	ridue idas	Pandras quinos
xv	iiii	klæ alende aprelas	Unum exptimic
xvi	iii	duo dona namq;	Duæ quaternis
xvii	vi	septem quincan	Speranus duobus
xviii	v	quacane klænde	Quinq; conuincunt
xix	iiii	quindene constane	Trib; adeptus

From the COTTON M.S. CALIGULA A XV, folios 122^b, 122^a. Written in the XIth Century

THE ANGLO-SAXON COMPUTATION OF HISTORIC TIME IN THE NINTH CENTURY.

BY ALFRED ANSCOMBE, F.R.HIST.SOC., *Hon. Secretary.*

INTRODUCTION.

§ i.

THE science of numismatography is one that regards the inscriptions on coins and medals as historical documents, and treats them in connection with what is known or surmised about the history of the times with which these documents were contemporary. It is primarily a critical science, which seeks to deal, on one hand, with the actual vehicles of these inscriptions, that is to say, with the coins themselves; while, on the other, it relies upon the judgment of diplomatists and historians in order to marshal its conclusions, and set them in such a position with regard to historical events that the evidence of the coins, and the knowledge we possess of the circumstances in which they were struck, shall throw light upon each other.

The nature of the services rendered to this science by the numismatist differs widely from the nature of those rendered by the historian. Numismatists are very often able to state a clear case: historians, perhaps quite as frequently, present a confused and contradictory one. The numismatist, as we have already observed, deals with original documents; and his conclusions, with respect to the matter and form of a particular inscription, are found to be corroborated, in very many instances, by the evidence of numerous other examples of it belonging to the same reign or period. The historian, it is well known, is mainly dependent upon copies, and is frequently

hampered by conventional views when forming a judgment. The documents he is desirous of using are rarely at hand, and essential details, even when given in the originals correctly, are apt to be corrupted in transcription. This liability to err is, it is true, greatly diminished by the circumstance that many legal documents of the period we are now interested in—namely, the Anglo-Saxon period—have been reproduced in facsimile by the Ordnance Survey,^a and by the Trustees of the British Museum.^b But, though the original charters of the Anglo-Saxons are more numerous than those of any other people in contemporary times,^c still, in scores of instances, these charters are of no greater assistance to the chronologist than the coins of King Egbert of Wessex.

This constitutes a serious difficulty, for the historian is constrained to bear in mind, at every successive point and turn of his argument, the necessity of observing the strict chronological sequence, not only of the chief events he is enumerating, but also of their consequences, the appearance, momentum, and gradual evanescence of which he is anxious to recognise and describe. On the other hand, the numismatist *quâ* numismatist is quite free, for the most part, from this obligation, inasmuch as, for a period comprising many centuries, the classification of the objects of his solicitude is not dependent upon chronological knowledge. When, for instance, he is occupied in arranging the coins of the Anglo-Saxon kings, he is not perplexed by any notes of time, because the coins afford none. His task requires him to comment appropriately upon the shape, weight, and ornamentation of the coins; to identify the metal of which they are made; to decipher

^a *Facsimiles of Anglo-Saxon Manuscripts*, photozincographed . . . by the Director-General of the Ordnance Survey, Lieut.-General J. Cameron, *et al.*, and edited by W. Basevi Sanders. Three Parts, 1878–1884. Mr. Sanders prepared an Introduction, also, and translations. [1707. d.] (I am giving the British Museum press-mark in brackets.)

^b *Autotype Facsimiles of Ancient Charters in the British Museum*, four vols., 1873–1878, ed. E. A. Bond. [1705. c. 15].

^c “Happily, these [original charters] for the Anglo-Saxon period, immensely surpass in number those of any other country for the same time . . . ” R. L. Poole, “The Teaching of Palæography and Diplomatic,” in *Essays on the Teaching of History*, Cambr., 1901, p. 19.

the inscriptions they preserve ; and to group them in accordance with the proper names of persons and places which these inscriptions, for the most part, consist of. The ability to read these proper names aright is postulated, and it is obvious that the task of the numismatist is performed as soon as he has presented the evidence of the coins in a systematic manner.

When, however, the laudable desire to link this meagre but valuable and indisputable information with the written history of the times makes itself felt, it becomes necessary to quit the solid ground of numismatic fact, and venture forth into the regions of speculation and conjecture. The chronological aspect of all questions touching the inscriptions then takes its place beside the linguistic and palæographical aspects, and it is perceived that the enquiry must be pursued with the sanction and restraint of chronological science. The result is that, as the need of wider and more critical investigation is experienced by the progressive numismatologist, he recognises that the aid of the historian and diplomatist must be secured, in order that the sequence of events, and the correlation of circumstances believed to be connected with the issue of particular coins, may be determined exactly. With this aid it should become possible to confirm or dissipate the hypotheses and conjectures which crowd the mind ; without it, the results of investigation and research cannot achieve reliability.

The help of historians and diplomatists having come to hand, the numismatologist who is concerned with Anglo-Saxon *numismata* quickly discovers that these authorities disagree among themselves. Moreover, he learns that different historians, when dealing with chronological questions, are alleged to be hampered in their investigations without knowing why, and are frequently found to be discrepant, even though dependent upon records which are believed to be accurate and trustworthy. With such perplexing facts before him, the investigator who is unwilling to take the accuracy of others for granted, and who has been trained to weigh evidence and gauge the relative worth of discordant witnesses, will set out to make himself acquainted with the particular rules of criticism which all historians profess to

be guided by when engaged in the solution of chronological problems. Should he pursue his investigations far enough, he will grow distrustful towards the statements made in the history books ; and in the sequel he will come to suspect that historians and diplomatists are unversed in the science of technical chronology, and unreliable and inaccurate in their application of its rules.

"It is to little purpose," said Sir Nicholas Harris Nicolas in the introduction to his work on chronology,^d "that early Chroniclers and Annalists should be correct in their Dates, or that Historical Evidences should be carefully preserved, if those who consult them are ignorant of the means of reducing those dates to the present system of computing Time." These words were written seventy years ago, but the opinion they convey is quite applicable to the circumstances of our own day. In early times it was the bounden duty of ecclesiastics to acquire the art of computing dates and periods;^e and it is now equally incumbent upon the scholars who undertake to introduce us to medieval authorities, to render themselves acquainted with the complicated methods of chronography employed by those worthies. But the systematic study of this medieval art would seem to be quite neglected in this country ; and students of history, together with historical writers and diplomatists, are unfamiliar

^d Nicolas, *The Chronology of History*, Pref. pp. vj. and vij. ; *vide infra*, Introduction § ii, note e.

^e One of the earliest prelates to urge reform in Paschal computation was Paul of Middleburg, Bishop of Fossombrone from 1494 to 1534 (Gams, p. 698), and in his *Parabola de correctione calendarii*, a little book written in 1516 in reply to those who had attacked his larger work *De recta Paschae celebratione et de Die Passionis D.N.I. Chr.* (Forosempronii, 1513), he says : "Scripsit beatus Augustinus computum etatis lunę esse necessarium sacerdoti." I do not know which work of St. Augustine's this occurs in. The late Henry Bradshaw, in an article on the Calendar in the *Dictionary of Christian Antiquities*, remarked : "A knowledge of the Calendar was one of the essential qualifications for the priestly office. It is a frequent injunction in the capitula of bishops—'presbyteri computum discant,' *let the priests learn the (Paschal) computus* . . . ; and the *Capitulare Interrogationis*, A.D. 811, of Charlemagne, I. 68, enjoins—'ut scholae legentium puerorum fiant ; psalmos, notas, cantum, computum, grammaticam . . . discant.' Bede, *H.E.*, IV., ii, p. 204, speaks of the throng of disciples taught "metricae artis, astronomiae, et arithmeticae ecclesiasticae disciplinam . . ." by Theodore and Hadrian between 669 and 690, at Canterbury.

with the means of reducing Anglo-Saxon computistical data to modern terms. The consequence is that serious mistakes are made from time to time by scholars of good repute, when dealing with such data. Within the last few years, certain prominent English scholars have publicly furnished examples of the inconvenience resulting from the want of preparation referred to. It will be remembered that the English public men who assumed the duty of celebrating the one-thousandth anniversary of the death of King Alfred the Great, were unable to determine the meaning of the phrases in which the ecclesiastics who were contemporary with him recorded his obit in the Winchester and other monastic chronicles. There was much discussion, and, in the course of it, it became quite clear, not only that those scholars who appeared to speak with most authority did not agree between themselves, but also that they were unacquainted with the elementary rules of Old-English computation.^f It was, in fact, discovered in the course of the enquiry that the respective authorities on the Saxon Chronicle and the Saxon Charters, namely, the Rev. Charles Plummer and Mr. W. H. Stevenson, did not know at what hour the computistical day began,^g nor on what day

^f Vide the *Athenæum*, 1898, Nos. 3,672, -3, -4, and 3,675; 1900, Nos. 3,804, -10, -11, -14 and 3,817; 1901, Nos. 3,819, -20 and 3,870.

^g Vide the *Athenæum*, March 19th, 1898, p. 373, col. 2. A perusal of Mr. W. H. Stevenson's letter will show clearly that when he wrote about "our word fortnight," and deprecated further argument about the incidence of *six nights before All-Hallowmass*, he had not the slightest inkling that the computistical day in Anglo-Saxon times did *not* commence and end at midnight. In the *Athenæum* of April 2nd, 1898, p. 439, Mr. Stevenson pleaded that his views coincided with "the normal and usual interpretation of the dates in the Chronicle and in the Calendars," which is quite possible. Professor Piper, whom Mr. Stevenson speaks of as a "distinguished chronologist," was equally uninformed. Moreover, Piper assigned King Alfred's obit to October 26th, 901; see his *Die Kalendarien und Martyrologien der Angelsachsen*, 1862, p. 48. [4825. cc. 29.] When laying claim to Piper as a distinguished ally with respect to the calendar date, Mr. Stevenson did not lay stress on the fact that they were antagonists with respect to the year, which he had given in the *English Historical Review* as 899. At the close of his letter of March 19th, Mr. Stevenson remarked that when I referred to computists dating Alfred's obit on October 25, 900, I was obviously speaking for myself alone; but he must be presumed to have been unaware then that that is the date preferred by the compilers of the *Art de Vérifier les Dates*, and they were certainly computists, as well as chronologists.

the Indiction began;^h nor in what month of the Julian year the Anglo-Saxon annalistic year began;ⁱ nor whether the regnal years of the West-Saxon kings were calculated from their accession or their coronation.^k The result of this was that the public men referred to were constrained to assume that the Anglo-Saxon chroniclers of the ninth century did not differ in chronographical method from ourselves;^l so they took the dates in the Saxon Chronicles just as they found them, and celebrated the millenary of King Alfred's death on October 26th, 1901, which was a year and a day too late.^m

With these and similar facts in mind, our President, Mr. Carlyon-

^h The only indiction that Mr. Stevenson would seem to be quite familiar with is the Pontifical one, current from December 25th. When speaking of the September one in the *Athenæum* of March 19th, 1898, he said that it "was an unusual method of calculating the indiction." In *Notes and Queries*, February 25th, 1899, 9th Series, iii, 150, col. 2, he referred to it again in similar terms; and he also declared there that I have imported the September indictions into the discussion about the date of a charter of Ethelred the Second's reign "merely because it suits (my own) convenience." For examples of the use of September indictions, *vide infra*, Chap. vii., § *iiii*.

ⁱ Mr. Stevenson assured the readers of the *English Historical Review* in January, 1898, vol. xii, p. 75, that English scholars did not know the calendar-date on which the Old-English year began in the ninth century; and (*u.s.*, p. 77) that no year is known to have been in use before the Norman Conquest, in which October came before June: *cf. infra*, Chap. vi, § *iiii*, however. This confession was made one year after Mr. Plummer's edition of Bede's *Historia Ecclesiastica* was published, and it would appear that when Mr. Plummer annotated the *Historia* he was unaware of the existence even of this problem: *vide infra*, Chap. vii, § *vii*.

In the course of this essay it will be necessary for me from time to time to dissent from Mr. Plummer's views and conclusions, and I hope sincerely that my attempts at correction will meet with his approval. I take this opportunity of referring here to the keen sense of obligation to his works that I entertain. The commentary on Bede has been my most frequent literary companion during the last ten years, and my indebtedness to its author, and my feelings of gratitude, are greater than I can tell.

^k In the *Athenæum*, July 16th, 1898, p. 99, col. 1, Mr. Stevenson says that "there is no evidence that the regnal years [of Alfred] were calculated from the coronation, and not from the election or accession." Mr. Stevenson knew of none, that is, and he assumed tacitly, therefore, that he might calculate from Alfred's accession: *vide infra*, Chap. i, § *vii*.

^l As Mr. Stevenson assigned the obit to October 26th, 899, and Mr. Plummer, *Two Chronicles*, *Notes*, ii, 112, assigned it to the same calendar date, but argued in favour of the year 900, the public men referred to chose to follow the literal rendering of the Chronicle itself.

^m The question of this important date will be reviewed later.

Britton, suggested to me that I should advance the cause of numismatological enquiry if I were to write out an account of the Anglo-Saxon methods of counting the years, and calculating the occurrence of hours, days and periods. I undertook this task gladly. I trust that the method of arrangement I have devised and adopted in this article will simplify the presentation of an intricate subject, and make it easy to discover and acquire that knowledge of the rules and principles of ecclesiastical computation, without which much of the work of ancient chroniclers must remain an unsolved problem.

§ ii. *Computistical Tool-books.*

The number of treatises on technical chronology is very great, and I will refer to only a few of them. Among French works the *Dissertation sur les Dates des Chartes et des Chroniques*^a is classical. It has formed the basis of most modern French and English books on chronology. It has a prominent failing, which consists in the paucity of instances of chronographical difficulties which its editor, Dom Clément, thought fit to give. The subject-matter naturally comprises French chronicles and diplomas. Hence it would be useless to look for detailed solutions of insular problems in the *Dissertation*. It is clear, however, that the compilers of the *Art de Vérifier les Dates* were aware of our difficulties, and that, too, before we had found out for ourselves that we did not know. We conclude this from the facts, *inter alia*, that they dated Alfred's obit correctly, in apparent opposition to the *Saxon Chronicles*, and in real opposition to English historians; and that they pointed out that numerous instruments printed in Rymer's *Foedera* in the reign of Queen Anne and executed in the period between Richard I. and Edward IV., are misplaced in date by one entire year.

The *Nouveau Traité de Diplomatique*^b is another French work

^a *L'Art de Vérifier les Dates des Faits Historiques, des Chartes, des Chroniques et autres anciens Monuments depuis la Naissance de Notre-Seigneur*, par un Religieux de la congrégation de Saint-Maur, 18 vols., 1818. [2088. a.]

^b *Nouveau Traité de Diplomatique, où l'on examine les fondements de cet art; . . . avec des éclaircissements sur un nombre considérable de points d'Histoire, de Chronologie, de Critique et de Discipline, etc.* 6 vols. Paris, 1750 to 1765. [2038. c.]

in which the *minutiæ* of computation are dealt with. But, as this work was compiled by two of Dom Clément's contemporaries, Benedictines of St. Maur like himself, the consideration extended to chronology does not pretend to be exhaustive. An article in it headed "Les Règles particulières sur les Dates," is instructive and concise.

The latest French work on chronology is Mons. Giry's *Manuel*.^c The second book therein is concerned throughout with technical chronology. It is rich in tables, but, like the *Dissertation*, it is too much restrained from giving instances of peculiarities. The computistical part of *Livre II.* is rather perfunctorily compiled. This is particularly the case where Mons. Giry deals with Pingré's calculations of the dates and times of eclipses. If the early and valuable notices of eclipses in Western Europe are to be properly identified, and rendered useful in the fixation of the dates of contemporary events, the importation of much more method into the analysis than Mons. Giry has supplied is necessary.

Among English treatises I would mention Playfair's *System*.^d This is a compilation which is dependent, in so far as the computistical portions of it are concerned, upon the work of the Benedictines. It carries the consideration of particular problems no farther forward than Dom Clément did in his *Dissertation*. The computistical tables selected by Dr. Playfair are printed very clearly, and trigonometrical formulas are furnished on p. 182 for calculating accurately the breadth of the penumbra at a given place during solar eclipses. On the preceding page, other tables are given, which serve to define the extent and limits of the penumbra, by inspection, and approximately only.

^c *Manuel de Diplomatique ; Diplomes et Chartes ; Chronologie Technique ; Eléments Critiques et Parties constitutives de la Teneur des Chartes, &c.* By Arthur Giry ; Paris, 1894. [2038. c.]

^d *A System of Chronology*, by James Playfair, D.D., Edinburgh, 1784. [210. i. 3].

Nicolas's *Chronology*^e is a little book which contains a mass of valuable information, hurriedly compiled in its computistical sections, and not well presented. It is frequently misleading and incorrect, but, at the same time, really very useful.

Hampden's *Glossary*^f contains a great deal which had appeared already in the *Art de Vérifier les Dates*. It is not adequate to supersede the *Dissertation sur les Dates* therein, and does not advance the study of computistics at all.

Prebendary Browne's *Compendium*^g is the work of a scholar who realised in himself the dictum of St. Augustine of Hippo, quoted already; *supra*, § i, note e. In this compendium we find the essence of computistical science well presented and correctly treated; but the author of it neither sought to apply his learning to the solution of medieval problems, nor attempted to advance beyond those fixed rules which the members of his profession ought to be familiar with.

Hardy's *Introductory Remarks*^h is one of several valuable treatises prefixed to our *Monumenta*. Whether I am quite accurate in attributing it to Sir T. D. Hardy exclusively, I am not sure. But he was well versed in the intricate matters dealt with in it, on the chronographical side, and he also had the advantage of being in possession of Mr. Petrie's papers. These *Remarks* elucidate several chronological points in the work of medieval writers, which would have remained obscure but for the intimate knowledge of their

^e *The Chronology of History, containing Tables, Calculations and Statements indispensable for ascertaining the Dates of Historical Events and of Public and Private Documents*, by Sir Nicholas Harris Nicolas, London, 1838, second edition. [12203. tt. 3].

^f *Medii Aevi Kalendarium, or Dates, Charters and Customs of the Middle Ages with Kalendars from the tenth to the fifteenth century, and an alphabetical Digest of obsolete names of days forming a Glossary of the Dates of the Middle Ages, with Tables and other aids for ascertaining Dates*, by R. T. Hampden, 2 vols. 1841. [2088. f].

^g *Ordo Saeculorum: A Treatise on the Chronology of the Holy Scriptures, together with an Appendix containing, inter al., 1. a Compendium of the principal Institutes of Chronology*, pp. 455 to 509, by Henry Browne, M.A., London, 1844. [1107. h. 29.]

^h "Introductory Remarks on the Chronology of the Mediæval Historians," *Monumenta Historica Britannica*, edd. Petrie and Sharpe, 1848, pp. 103 to 128. [2072. g.]

method, and of the manuscripts of their works, possessed by both the scholars named. The *Remarks* are neglected or, perhaps, overlooked by those German scholarsⁱ who have taken such deep interest in the History of the Britons since the appearance of Professor H. Zimmer's *Nennius Vindictus*. They do not seem to be read by contemporary English scholars, either.^k

De Morgan's *Almanacs*^l is one of a class of works which a student who wishes to become a computist should not use. Everything is done in this, and similar books, to encourage the student to depend on tables. Such books should only be used to verify results achieved by application of the proper rules. The accuracy of Professor De Morgan's computations is, I believe, unquestioned.

Bond's *Handy-Book*^m is another work in which no systematic attempt to teach computistical science is made. It shows keen insight with respect to the value of data, however; though it has nothing to tell us about either the incidence of the *feria* and ecclesiastical calendar-day, or their differences. The charge brought against it by Dr. Reginald L. Poole,ⁿ viz., that it is ill-arranged, is not intrinsically unjust, but it is not by any means alone in exhibiting that shortcoming.

ⁱ By, *inter al.*, (a) Professor Heinrich Zimmer himself, (b) Dr. Mommsen, and (c) Professor Thurneysen: (a) *Vide Nennius Vindictus*, 1893, p. 206; (b) *vide* notes to capp. xvi and the *Exordium* of the *Annales Cambriae*, "*Chron. Minor*," 1894, iii, p. 209. Cf. *Ériu*, vol. iii., 1908, p. 117; (c) *vide Zeitschr. f. deutsche Philologie*, Bd. xxviii, and *Zeitschr. f. celtische Philologie*, Bd. i.

^k By, *inter al.*, (a) Mr. W. De Gray Birch, (b) the Rev. Charles Plummer, (c) Mr. W. H. Stevenson: (a) *vide infra*, Chap. I, § ii, note *n*; (b) *vide ibid.* note *o*; (c) *vide infra*, note *u*, and text.

^l *The Book of Almanacs, with an Index of Reference whereby the Almanac may be found for every year whether in old style or new from any epoch, ancient or modern, up to A.D. 2,000. With means of finding the day of any new or full moon from B.C. 2,000 to A.D. 2,000.* Compiled by Augustus De Morgan, *Secretary*, R.A.S.; London. 1851. [8560. a. 27.]

^m *The Handy-Book of Rules and Tables for verifying Dates of Historical Events and Public and Private Documents.* By J. J. Bond, fourth ed., 1889. [2088. g.]

ⁿ *Ut supra*, § i., note *c*. p. 28.

The Germans also have paid great attention to the art of computation. Ideler's *Handbuch*^o is known to all investigators. But it is too advanced for the general student, and the method which informs it is historical and not computistical.

Grotefend's *Zeitrechnung*^p is replete with useful information, which is, unfortunately, presented in the form mistakenly preferred by Hampson, viz., that of a glossary. It is comparatively rich in instances of computistical difficulties, but they are not always successfully elucidated.^q The same author's *Taschenbuch*^r is much better arranged, and, if used in conjunction with his *Glossar*, would serve well as an introduction to the study of computistics. There is the same objection to the Thirty-five Calendars, printed in the *Taschenbuch*, as that urged already to Professor De Morgan's Thirty-five Almanacs.

Professor Rühl's *Chronologie*^s is spoken of by Dr. Poole (*u.s.*, p. 28) as "a very instructive little treatise." But it is not always correct,^t and acquaintance with Hardy's *Remarks* would have

^o *Handbuch der mathematischen und technischen Chronologie*. By Christian Ludwig Ideler: Berlin, 1825-6. [580. e. 27.]

^p *Zeitrechnung des deutschen Mittelalters und der Neuzeit*. By Dr. H. Grotefend. Erster Band: *Glossar und Tafeln*. 1891. [8562. ff. 45.]

^q E.g., the note "Feria una" (p. 60). "In dem datum *feria una post dominicam quasi modo geniti* (*Alftersche Sammlung auf der Hofbibl., Darmstadt*, Bd. 34, S. 181, n. 209) möchte ich statt des *una* ein *iii*^a, für *feria quarta*, conjecturiren. Eine falsche Wortwahl für die Zahl 1 = *prima*, ist ausgeschlossen, denn warum sollte man dann nicht direkt schreiben *dom. misericordia*?" The conjecture and the form of the question show clearly that Dr. Grotefend does not understand ferial computation. The Lord's Day called *Quasi modo geniti* ended at Vespers on the civil day we call Sunday, or, as the medieval computists would have put it, *una sabbati* ended on *prima feria*. The *feria* does not end till midnight; consequently, the event dated may have occurred between the tenth hour of the natural day and the midnight hour following. Cf. *infra*, Chap. iii, § iii.

^r *Taschenbuch der Zeitrechnung des deutschen Mittelalters und der Neuzeit, für den praktischen Gebrauch und zu Lehrzwecken entworfen*. By Dr. H. Grotefend. 1st edition, 1898; 2nd, 1905. [8563. a. 55.]

^s *Chronologie des Mittelalters und der Neuzeit*. By Franz Rühl, Berlin, 1897. [8561. dd. 19.]

^t There is a glaring error on p. 142, § 19—*Die Concurrentes*, where the order of the Sunday letters is given, above the concurrents, as "FGABCDE." instead of *FEDCBAG*; and the ratio of the concurrent days is not explained correctly on the following pages (*vide infra*, Chap. iii, § xi.).

prevented its author from taking up a position, with respect to the different Christian eras, which is neither in harmony with the truth nor consistent with his own testimony."

The Continental works enumerated are often appealed to by English writers on historical matters, and especially the German ones. But it may be said, once for all, that Continental authors are far too busy with their own national problems in chronology to pay that amount of attention to Anglo-Saxon, and other insular ones, which is necessary in order to solve them.

Ferial computation is not treated of properly in any one of these computistical vade-mecums. Moreover, not one of the works mentioned, whether English, French or German, has its matter arranged in such a way that the subject can be surveyed as a

" Professor Rühl remarks, on p. 198: "Ob Dionysius die Geburt Jesu auf den 25 Dezember seines Jahres 1, [*a*] oder auf den 25 Dezember des vorhergehenden Jahres angesetzt habe, ist für die technische Chronologie gleichgiltig, und [*b*] ebenso gleichgiltig für diese ist die früher viel behandelte andere Frage, ob seine Rechnung mit der historischen Wahrheit übereinstimme oder nicht." In *a* Rühl takes it for granted that Dionysius began the Incarnation-year on the day of the Nativity; he began it on either September 1st or 24th. The second assertion, *b*, is dependent upon the assumption that no attempts were made by those who alleged error in Dionysius's computation to rectify that error, real or supposed. Now we have eras of the Incarnation differing from that of Dionysius by three, five, and twenty-two years, and it is certainly not a matter of indifference to technical chronology whether Dionysius's fixation is historically correct if later chronographers, who objected to it, published other systems in which events are dated with different numbers but in the same style as they are in the system of Dionysius, viz., *ab incarnatione dominica*. Mr. W. H. Stevenson trustfully follows Rühl in asserting that these considerations are immaterial. (*Vide Notes and Queries*, 9th Series, iii, February 25th, 1899, p. 150). In the *Zeitschrift für celtische Philologie*, Band iii, p. 507, 1901, I have dealt with the difference of three years in numerous dates calculated in an era of the Incarnation divergent from that of Dionysius. For the difference of twenty-two years, in some other computations, see what Rühl himself has to say about Marianus Scotus and Florence of Worcester, pp. 202-3. Both chroniclers dated in two ways, which differed by twenty-two years, the year-numbers in the Dionysian era of the Incarnation being twenty-two less than those in the era of the Incarnation styled *secundum Veritatem Evangelii* by Marianus. The last-named is quite mistakenly supposed by Bodley's Librarian, *Celtic Review*, April, 1906, to have been the first annalist or chronicler to make use of this era.

coherent whole, even by advanced students. In view of this, the distribution about to be made of the data dealt with in this article will be found helpful, and will, perhaps, smooth the way for any earnest students who may determine to apply themselves to the acquisition of a neglected, but by no means negligible, body of facts.

§ iii. *Computistical Data.*

The modern system of chronography, *i.e.*, the system of writing down the date of time, is simple and uniform. For instance, "January 13th, 1901," is a clear and certain date, with an absolutely definite meaning, among Christians both of the Reformed Churches and the Latin one, and there is not the slightest difficulty in the way of the practical application and understanding of this and similar phrases at the present day. If, however, we go back two centuries, and copy down "January 13th, 1701," as the date of an event that occurred in Western or Central Europe, the question of the source, or authority, immediately comes to the front; because at that period of time the practice of dating was not uniform in those regions. Hence, in order to verify, or reduce, such a date to our system, we must know in which country it was written down, and how the method of dating practised therein compares with our modern method; for "January 13th, 1701," might well indicate January 24th, 1702. Similarly, if we recede for four hundred years, and meet with the date "January 13th, 1501, according to the computation of the Church of England," we are able to say that the particular day fell in the Julian year, 1502; if, that is, we have been apprised that the ecclesiastical year which was used for chronographical purposes at that period, and in this country, began on March 25th. On the other hand, if we ascend in time for eight hundred years, and meet with the isolated statement "*Idibus Ianuariis, anno dominice incarnationis M^o C^o I^{mo}*," and are required to equate it, we are constrained to admit that we are quite unable to do so, inasmuch as the datum *Idibus Ianuariis* might have covered any event occurring between Vespers on January 12th, and midnight on the following day; and the annuary numbers, 1101, might indicate our 1102, or our 1079, or 1080,

according to the style favoured by the datary when writing down the date. In order to reduce such a datum to modern terms, other data must be discovered, such as the day of the week, the Indiction, the lunar day, the regnal year of the king, or the like.

These and similar criteria are recognised as computistical, and the correct use of them enables us to reduce complex dates, given in the intricate systems of medieval chronography, to our own uniform and simple one. In our system, computistical criteria are unnecessary, and can only serve to verify. But, amidst the conflict of methods from which our system has been evolved, the provision of such data was felt to be imperative, in order to ensure exact definition. Early critics were of the opinion that the crowd of dates provided by some computists gave cause for just suspicion as to the genuineness of documents. More recent ones have chosen to regard the luxuriance of computistical terms and calculations, in some diplomas and annalistic work, as a mark of pedantry. But a truer view is, that the conscientious medieval datary was always oppressed by the doubt whether the list of criteria he had provided was sufficiently varied to enable others to determine the date exactly.

Computistical data are either conventional or relative. Relative data fall, naturally, into three well-defined groups. They are primarily either cosmical, or political; and the cosmical group must be sub-divided into two classes—namely, the regular and the variable. The classification of computistical data, therefore, yields the following scheme: 1, conventional data; 2, data that are cosmical and regular in occurrence; 3, data that are cosmical and variable in occurrence; and, 4, political data.

Class 1, which embraces conventional data, includes the name or number of the civil day, or of the lunar day, or of the ecclesiastical day; the groupings of these days in week, octave, month, and year; the notifications of holidays, religious festivals, and Saints' Days, and the like.

Class 2 comprises cosmical data that are regular in their occurrence—to wit, sunrise, high noon, sunset; the phases of the moon; the changes in the seasons; the equinoxes, the solstices, and the solar year.

Class 3 includes cosmical data that are variable, such as eclipses of the sun and moon;^a the appearance of comets; atmospheric phenomena; famines and plagues; inundations; high winds, earthquakes, and the like.

Class 4 consists of political data. These are conventional as well as relative, and the group includes the more or less exact data which serve to fix the accession, consecration, and obits of kings and bishops; the incidence of their regnal and official years; the dates of battles, and of sieges; of notable marriages, also; of the foundation of monastic and ecclesiastical buildings; of royal, and episcopal grants by charter; of the giving of laws; and of much more of a kindred nature.

This classification of the objects with which the art of computation is concerned, will help us to realise the complex character of the task which lies before us. It will also enable us to regard the rules of that art in the light of a definite coherent whole. The lines laid down for the study of the subject in the synopsis printed below are the corollary of the method of classification adopted. It is hoped that these lines will be found upon examination to be clear and direct; and it is believed that the application of the method that informs them will lead to definite and reliable results in the tangled fields of chronological research. The synopsis will also serve as an index to this essay.

[*The right of reproducing this Table is reserved.*]

SYNOPSIS OF COMPUTISTICAL RULES AND CRITERIA.

INTRODUCTION.

§§

- i. *Preliminary Remarks.*
- ii. *Computistical Tool-Books.*
- iii. *A Classification of Computistical Data.*

^a Eclipses are variable in their appearance as data in the annals and chronicles; not, of course, in their occurrence as phenomena in time. The interval of time between two occultations, occurring centrally, of any spot on the earth's surface during a solar eclipse, is very long, amounting sometimes to hundreds of years. *E.g.*, there has been no lunar occultation of London, centrally, since A.D. 1715; and it is believed that the next before that occurred in A.D. 1140.

PROLEGOMENA.

Chapter i. How to Count.

§§

- i. *The Computistical Conception of Time.*
- ii. *The Latin Letters and other Signs of Number.*
- iii. *The Latin Ordinal Numeral and its Idiom.*
- iiii. *The Computation of the Roman Calendar Day.*
- u. *The Equation of Years in different Eras and Subsidiary Intervals.*
- ui. *The Method of Computation by Past Periods.*
- uii. *The Computation of Regnal and other Official Years.*

CONVENTIONAL DATA. BOOKS I. AND II.

BOOK I. THE DAY.

¶1. The Different Kinds of Computistical Days.

Chapter ii. The Natural Day.

- i. *The Definition of the Term.*
- ii. *The Course of the Natural Day.*
- iii. *The Subdivisions of the Natural Day.*

Chapter iii. The Lunar Day.

- i. *The Definition of the Term.*
- ii. *The Course of the Lunar Day.*
- iii. *The Characteristics of the Lunar Day.*
- iiii. *The Proper Names of some Lunar Days.*
- u. *The Treatment of the Julian Intercalation in Lunar Computation.*
- ui. *The Dating of the Lunar Day in Terms of the Julian Calendar.*

¶1. The Grouping of the Lunar Days (§§ ui. and uiii.)

- uii. *The Lunar Calendar Month.*
- uiii. *The Notation of the Lunar Calendar Months.*
- ix. *The Lunar Calendar Year.*

¶2. The Grouping of the Lunar Years.

- x. *The two Lunar Cycles of Nineteen Years each.*
- xi. *The Ogdoad and the Hendecad.*

¶3. The Criteria of the Decemnovennial Cycle (§§ xii-xuii.)

- xii. *The Golden Number.*
- xiii. *The Epacts.*
- xiiii. *The Sedes Epactarum.*

§§

- xu. *The Termini Paschales.*
- xvi. *The Embolisms.*
- xvii. *The Saltus Lunaris.*
- xviii. *The Lunar Regulars.*
- xix. *The Computation of the Date of Easter Day.*

Chapter iii. The Civil Day or FERIA.

- i. *The Definition of the Latin Term.*
- ii. *The Course of the FERIA.*
- iii. *The Characteristics of the FERIA.*

¶1. The Grouping of the *Feriae* (§§ iii.–vi.)

- iiii. *The Nundinal Period, or Roman week.*
- u. *The Civil Week or Septimana.*
- vi. *The Naming of the *Feriae*.*
- vii. *The Julian and Augustan Months.*
- viii. *The Julian Intercalation.*
- ix. *The Computation of the Bissexus.*
- x. *The Julian Calendar.*
- xi. *The Concurrent Days.*

¶2. Ferial Computation by means of Letters (§§ xii. and xiii.)

- xii. *The Ferial or Diurnal Letters.*
- xiii. *The Sunday Letters and their Cycle.*

Chapter v. The Computistical or Ecclesiastical Day.

- i. *The Definition of the Term.*
- ii. *The Course and Characteristics of the Computistical Day.*
- iii. *The Holy Days or Festivals.*
- iiii. *The Saints' Days.*

¶1. The Grouping of the Computistical Days (§§ u.–ix.)

- u. *The Hebdomada or Sabbatum.*
- vi. *The Octave.*
- vii. *The Quadragesimal Periods.*
- viii. *The Quinquagesimal Period.*
- ix. *The Julian Calendar Month.*

¶2. The Calculation of the Computistical Days (§§ x.–xii.)

- x. *By the Ferial Letters.*
- xi. *By the Day of the Week.*
- xii. *By the Age of the Moon of the Tables.*

¶3. The Subdivisions of the Computistical Day (§§ *xiii.* and *xiiii.*)

§§

- xiii.* *The Vigil.*
xiiii. *The Hora.*

¶4. The Computation of the *Hora*.

- xu.* *The Equation of Times.*
xvi. *The Horae Inaequales.*

BOOK II. THE YEAR.

Chapter vi. The Julian Calendar Year.

- i.* *The Definition of the Term.*
ii. *The Course of the Julian Calendar Year.*
iii. *The Characteristics of the Julian Calendar Year.*
iiii. *The Caput Anni or New Year's Day.*
u. *The Order of the Months.*

¶1. The Grouping of the Julian Calendar Years (§§ *ui.*–*uiii.*)

- ui.* *The Biennium, Triennium, Quadriennium, etc.*
uii. *The Olympiad.*
uiii. *The Indictions.*

Chapter vii. The Varieties of the Julian Calendar Year.

- i.* *The Annus Mundi.*
ii. *The Annus Consularis.*
iii. *The Martian Year.*
iiii. *The Indictional Year.*
u. *The Byzantine Year.*
ui. *The Year of the Annunciation.*
uii. *The Year of the Incarnation.*
 a—according to Dionysius Exiguus.
 b—according to Gospel Verity.
uiii. *The Year of the Age of our Lord.*
ix. *The Year of the Nativity.*
x. *The Year of the Circumcision.*
xi. *The Year of the Passion—*
 a—according to Prosper.
 b—according to Victorius.
 c—according to Gospel Verity.
 d—according to Bede.
xii. *The Year of the Ascension.*

COSMICAL DATA. BOOKS III. AND IV.

BOOK III. COSMICAL DATA OF REGULAR OCCURRENCE.

Chapter viii. Solar Eclipses.

§§

- i. *The Definition and Description of Solar Eclipses.*
- ii. *The Varieties of Solar Eclipses.*
- iii. *The Conditions of Visibility of Solar Eclipses.*
- iiii. *The Data for determining the Visibility of Solar Eclipses.*
- u. *The Solar Eclipses recorded in the Saxon Chronicles.*

Chapter ix. Lunar Eclipses.

- i. *The Definition and Description of Lunar Eclipses.*
- ii. *The Varieties of Lunar Eclipses.*
- iii. *The Conditions of Visibility of Lunar Eclipses.*
- iiii. *The Data for determining the Visibility of Lunar Eclipses.*
- u. *The Lunar Eclipses recorded in the Saxon Chronicles.*

BOOK IV. COSMICAL DATA OF IRREGULAR OCCURRENCE.

Chapter x. Comets.

- i. *The Definition of the Term.*
- ii. *The Descriptions of Cometary Appearances.*
- iii. *The Identification of Cometary Appearances.*
- iiii. *The Appearances of Comets recorded in the Saxon Chronicles.*

Chapter xi. Atmospheric Phenomena.

- i. *The Definition of the Term.*
- ii. *The Descriptions and Varieties of Atmospheric Phenomena.*
- iii. *The Visible Atmospheric Phenomena.*
- iiii. *The Invisible Atmospheric Phenomena.*
- u. *The Atmospheric Phenomena recorded in the Saxon Chronicles.*

Chapter xii. Plagues.

- i. *The Definition of the Term.*
- ii. *The Descriptions and Varieties of Plagues.*
- iii. *Epidemics.*
- iiii. *Murrains.*
- u. *Epidemics and Murrains recorded in the Saxon Chronicles.*

Chapter xiii. Earthquakes.

§§

- i. *The Anglo-Saxon Names for Earthquakes.*
- ii. *The Earthquakes recorded in the Saxon Chronicles.*

EPILEGOMENA.

Chapter xiiii. The Predicaments of Computistical Data.

- i. *False.*
- ii. *Repugnant.*
- iii. *Contrariant.*
- iiii. *Discordant or Incoherent.*
- u. *Indeterminate.*
- ui. *Relative or Dependent.*
- uii. *Plenary.*

The conventional plays so large a part in the scheme presented that the only datum that a modern enquirer who is not a computist can be said to rely on with safety, is an occasional notice of a solar eclipse. Everything else is set in doubt for him. He will find, to his amazement perhaps, that he cannot even count correctly ; and, until he has recognised his true condition, and mastered the elementary rules which directed the methods of ecclesiastical chronography, much of the labour and time he may expend in research must be wasted, or lost outright.^b We will, therefore, proceed to the consideration of the

^b For instance, Edmund Halley's reasoning in his "A Discourse tending to prove at what time and place Julius Cæsar made his first descent upon Britain" (*Philosophical Transactions*, 1693, No. 193), is vitiated by the fact that he mis-rendered the ordinal given by Cæsar. Cf.—"At philologica ratione Halley peccauit quod Cæsarem die 26 August. ascendisse asserit quum dicere deberet diem 27 August. Nam ex Romanorum computandi ratione dies quartus post xxvi. non est dies xxx., sed xxix., quod satis constat inter philologos et iureconsultos. Notandum ceterum, quod de numeris ordinalibus ualet, id non deberi transferri in numeros cardinales, neque *quadriennio post* siue *quatuor annis post* idem esse quod *quarto post anno*"; F. C. Wex, C. Cornelii Taciti *De Vita et Moribus Cn. Iulii Agricolae* liber, 1852, p. 181. Halley's erroneous date of August 26th is reproduced by the compiler of *The Annals of England: An Epitome of English History*, 1855, i. 17 ; and it appears in other works. Similarly, Professors Mayor and Lumby in their edition of part of Bede's *Historia Ecclesiastica*, 1878, Introduction, assigned Bede's obit to A.D. 742, instead of 735, owing to the fact that they were hampered in their calculations through being unaware that the calendar date of the ecclesiastical day was changed at Vespers, and not at midnight ; *vide infra*,

method of counting from a *terminus à quo* which was in vogue among ecclesiastics in medieval times.

PROLEGOMENA.

CHAPTER I. HOW TO COUNT.

§ i. *The computistical Conception of Historic Time.*

The conception of relative or historic time, that is at once the most picturesque and the most practical, is the poetical one, which presents time as a flowing tide, ever moving forward and downward and always abreast of the present moment.^a When this idea is firmly grasped by the mind, the fitness of such phrases as "a high antiquity," "down to the year 850," "a lower date," "a higher date," becomes apparent, and we see clearly why such a phrase as "up to now" is colloquial and improper.^b

The relationship, in time, between events is threefold: they are either prior to, contemporaneous with or subsequent to some other events. Of these relative conditions two only can be connected by law, namely, the first and the third. The second—the relationship of contemporaneousness, is accidental, and lies quite apart from the

Chap. v, § ii. These instances might be multiplied almost indefinitely, and I will only give one more, which is attributable to an oversight in treating the change in the year-number. In the *English Historical Review*, vol. xi, 1896, Mr. Stevenson sought to prove the authenticity of an alleged royal charter to St. Martin's-le-Grand; and in support of his argument he assigned the Conqueror's coronation to Christmas Day, 1067, and the coronation of Matilda to the *following* Whitsuntide, 1068. But A.D. MLXVII began on Christmas Day, 1066, the very day of William's coronation, and the Whitsuntide following was not that of 1068. These errors were castigated by Mr. J. H. Round in the *Athenæum*, No. 3,616, February 13th, 1897, p. 214.

^a "Fragments of that lofty strain Float down the tide of years. . . ." Sir Walter Scott, "Thomas the Rhymer," part iii, verse 9. "The forward-flowing tide of time. . . ." Lord Tennyson, "Recollections of the Arabian Nights," l. 4.

^b Mr. Plummer speaks of the continuation of the national chronicle—"up to the death of Edward the Elder"; Introduction, *Two Chronicles*, p. cxii. "The reckoning from Christmas prevails," he believes, "throughout the Alfredian chronicle, i.e., up to about 892"; *ibid*, p. cxl. Professor De Morgan did not carry his almanacs *forward* to the year 2000, but "up to" that year; *cf. supra*, Introduction, § ii, note 1. Similarly, Dr. Miller renders "oð ðysne andweardan dæg" (Bede's *nunc usque*), by "up to the present day"; *O.E.V.* of Bede, Praeface, p. 4, l. 25; Introduction, xviii, l. 24.

sequence of cause and effect. It is the duty of the chronologist to determine these relationships exactly. Failure to do so correctly, results in anachronism. If events are dated before their true time the failure is defined as prochronism; if they are dated later than the truth demands, it is parachronism. When the chronologist corrects a prochronism, he retards the appearance in written history of the event connoted, and lowers the date of it. Conversely, when parachronisms are corrected, the appearance upon the tide of historic time of the notices to be adjusted is accelerated, and the date of that appearance is advanced.^c

§ ii. *The Latin Numeral Letters and Signs.*

As the Christianity of this country was derived directly from Rome, the method of connoting numerical ideas employed herein, in early medieval times, is naturally found to have been the Roman one, which made use of signs and letters. The number of these symbols is small, and we only find four in use: namely, the plain score (I), which was sometimes truncated (I); the X, x.; the C, which was in certain times and places written C; and the M, which was set down as CIƆ, and may have been the Greek sign ϕ (*phi*), which stood for one thousand.^a In order to indicate all the numbers, these signs were treated in the six ways following:

1. By halving: X into V; C into L; CIƆ into Ɔ;
2. By geminating: II., XX., CC., M.M.;
3. By grouping: III., IIII.; XXX.; CCC., CCCC.; M.M.M.; M.M.M.M.;

^c With Mr. Plummer, events dated later than the truth requires are "in advance of the true chronology": *Two Chronicles, Notes*, ii, p. 116, l. 23. Similarly, when he alters the given years 902 and 913 to 904 and 914, respectively, he does not "advance" the dates by two years and one year, but retards them; *ibid.*, p. 117, ll. 7 and 10. On the same page the Annals of Ethelwerd and those of St. Neots are said to be *behind* the chronology of the Mercian Register, when "in advance" is meant; and in the chapter *On the Origin of the Chronicle*, ii, p. cii, Mr. Plummer says that a majority of the events from about 750 to 850 are two years, and others three years, *behind* the true chronology. Here, also, for "behind" we must understand *in advance of*. Cf. also, *Two Chronicles*, Introduction, p. ciii, note 3.

^a *Vide Varronianus*, by John Donaldson, D.D., 1860, p. 324.

4. By prefixing to indicate subtraction : IV., IX., XL., XC.;
5. By subjoining to indicate addition : VI., XII., LXXX., CL., M.C.;
6. By drawing a line above the letter to indicate multiplication by one thousand : \bar{I} ., \bar{V} ., \bar{X} .

C and M are believed to be the initial letters of the Latin words *Centum*, 100, and *Mille*, 1,000 ; but the long arm of coincidence has not failed to affect the various systems of explanation devised by scholars. The cumbrous nature of the Roman method is obvious, and in one case no fewer than thirteen signs were necessary to connote a number (*sc.* 988) that we express by three, viz ; DCCCC. LXXX. VIII.

It is not easy for us, who possess a compact and logical system of arithmetical notation, to realise the difficulties that hampered the early calculators. But we can see how very unpractical their methods were by endeavouring to multiply say the signs CXXVIII by the signs LXIX., without the intervention of modern scientific enumeration. It was only possible to do this by analysis ; thus : —

<i>centies</i> ("one hundred times")	<i>LXIX.</i>	=	<i>sexies mille et dccc.</i>
<i>uicies</i> ("twenty times")	<i>LX.</i>	=	<i>mille et cc.</i>
	et <i>IX.</i>	=	<i>c. lxxx.</i>
<i>octies</i> ("eight times")	<i>LX.</i>	=	<i>cccc. lxxx.</i>
	et <i>IX.</i>	=	<i>lxxii.</i>
<hr/>			
<i>Summa</i> = \bar{VIII} . DCCC. XXX. II.			

This was the actual process employed by medieval computists when explaining arithmetical methods of multiplication ; *cf.* Bede, *De Temporum Ratione*, cap. LIV., 503-04 ; ed. Migne, *Patrol. Cursus*, tom. xc.

The rule with regard to the grouping of signs is that none is to be repeated more than four times.^b But this rule is found broken in the

^b "Nulla autem nota apud Latinos multiplicatur per se magis quam per quatuor uices aut cum aliis multiplicatur." Hrabanus Maurus, *Liber de Computo*, cap. v ; ed. Migne, *Patrol. Cursus*, tom. cvii, col. 673. Mabillon in his *De Re Diplomatica* (II, xxviii, ii, 223) speaks of the year 1165 being written *MCXXXXXXV* in an agreement of that date. Migne *Patrologiæ Cursus*, tom. xiii, col. 687, cites a list of Roman consuls, ending with

case of every sign but the plain and truncated score, the *V* and the *L*. With respect to the digits, a minuscule letter, as well as a majuscule one, appears. It is almost the rule to find that four pot-hooks, or minims were written in Anglo-Saxon manuscripts, instead of prefixing *i* before *v*. Sometimes these were written .*IIII*., at others .*iiii*.. Instead of *ix*., or *ix*., *viii*., or *uiiii*., frequently appears.^c The omission of the apex from above the letter *i* is a constant cause of error. Thus, .*iiii*.. may be either *uii*., or *iiii*.^d Errors of this class are the most

the consul of A.D. 493, in which A.M. *MMMMMXLIV* appears written. In a short chronicle (inedited) of the Church of Worcester, which was written about A.D. 1250, and which is bound up along with certain MSS. of Pipewell monastery in the Cotton codex, *Caligula A. XII* (fol. ii-vi verso), "DCCCCXLII" is glossed by nine C's above the line.

^c Instances occur in the section *De Computo Ecclesiastico* in the Leofric Missal written in the eleventh century; see F. E. Warren's edition, 1883, pp. 35-37. Also, in the Cotton MS. *Tiberius A. VI*, of the *Saxon Chronicle*, Thorpe, Plate II, we get *Annus uiiii*, and *Annus xuiiii*.

^d Cf.—*i*. Kemble, *C.D.*, v. 64, the council of Cloveshoh is dated "iiii. Id. Oct. DCCCIII.," = October 12th, 802-DCCCIII., a Wednesday. This should be *uii. Id.*, = October 9th, a Sunday, 802.

ii. In *H.A.A.*, § 17, ed. Plummer, p. 394, Ceolfrid's consecration is assigned to "iiii. Iduum Maiarum die," = May 12th, a Tuesday. This should be *uii. Id.*, = May 9th, which enveloped the vespertine portion of the Lord's Day, *i.e.*, Saturday evening.

iii. In the Laud MS. of the Peterborough *Saxon Chronicle*, Eardwulf's coronation is dated "uii. kl. Iunii," = May 26th, a Thursday. This should be *iiii. kal. Iunii*, = May 29th, a Sunday. The true year is 796.

iiii. In the *Codex Canonum Vetus*, ed. Migne, *Patrologiæ Cursus*, lxvii, 227, in the copy of the letter of Cyril of Alexandria to the Church of Africa, Easter is dated "xuii. Cal. Maias" for *xiiii. Cal.* Dr. MacCarthy, who cites this letter in his Introduction to the *Annals of Ulster*, iv, cxxxiv, note 5, says that this error, namely, the misreading of *ii* as *u*, is one of "the besetting scribal mistakes."

v. A charter of King Edgar to the Old Minster at Winchester (Kemble, *C.D.*, No. 595; Birch, No. 1,307) is dated "euolutis xvii. annis postquam totius nationis Anglice regimen suscepi, attamen primo meae regie dedicationis"; and Mr. Plummer, *Two Chronicles*, Notes, ii, 161, remarks, "xvii. is evidently a mistake for xiiii."

vi. In the Evesham or Worcester *Saxon Chronicle* (*D*), in annal 1023, which was written *c.* 1050 (p. 156, mid.), "xvii. kl. Iulii" is said to be "on þam eahteoðan dæge" from "iii. Id. Iun.," *i.e.*, June 15th is the eighth day from June 11th. If "iii. Id. Iun." is correct, we must read *xiiii. kl. Iulii*; if "xvii. kl. Iulii" is correct, we must read *ui. Id. Iun.*

A great number of instances of *ii* :: *u* [I am using the symbol :: as = "misrepresenting"], *u* :: *ii*, *ui* :: *iii*, *uii* :: *iiii*, and the converse, are to be met with. In *Notes and Queries*, 9th Series, vol. iii, January 28th, 1899, pp. 70, 71, I pointed out five computistical mistakes which Mr. W. H. Stevenson had made when assigning a date to

frequent of all those that hinder the progress of the computist. The Visigothic, or Anglo-Saxon C (C), and the L, are often found mistaken one for the other;^c and, at times, even *u* and *x* collide.^f The transposing of *l*, or *x*, in *xl*. and *lx*., is another source of confusion.^g

Most curious of all is the tendency, developed in the eighth and ninth centuries, to use *D* as an enumerator of the value of *quinquies*, "five times," in connection with the higher numbers *C*. and *M*.^h

the charter alleged to have been granted in 996 by Wulfrūn to the monastery at Hampton, and I suggested that "luna xxii." in the date in that document is a misreading of *xxu*. Mr. Stevenson (*ibid.* p. 150) objected to this, and he asserted that I was "fond of the notion" that *u*, the numeral, may be misread as *ii*, and he declared that the scribes no longer used *u* for the numeral in royal charters in King Ethelred's time. But he had already denied that Wulfrūn's charter was a royal one, inasmuch as he had asserted that it was a forgery. Moreover, he did not indicate what form really was used, and the plea of desuetude in Ethelred's time may be easily rebutted. In Thorpe's facsimile, Plate II, of the Abingdon *Saxon Chronicle* (*B*), in the Cotton MS. *Tiberius A. VI*, at Annus VI, three different symbols of the Latin numeral *quinque* appear side by side; and this MS. was written *c.* A.D. 1000, *i.e.*, in about the twenty-second year of Ethelred. These symbols are, first, the *u*; second, the form which is neither *u* nor *v* (*q*); and, lastly, the true *v*, which, however, is not quite so symmetrical as the modern one.

^c Cf. the interesting error of "D" for *cccc*., the date of the Saxon invasion as given at Ripon in A.D. 744 to Slibine, afterwards abbot of Iona. The letters were all read as C's, and the resultant datum *cccc*. appears condensed as "D" in the Chartres MS. of the *Historia Brittonum*; vide *Zeitschrift für celtische Philologie*, Bd. i., p. 274. In the copy of the *Historia Brittonum* in the Vatican Library (*Reginæ*, 1,964, eleventh century), the original of which was written in England in A.D. 944, and in the fifth year of King Edmund, we read, cap. lvi. (p. 201, ed. Mommsen), that from "anno post domini passionem cccxluii. ad hunc quem nunc scribimus annum dcluii. [annos] numeramus." For "A. P. cccxluii." we must read *cccxcuii.*, and "dc." = 500 (*cf.* notes *h* and *m*, *infra*), therefore 397 plus 547 = A.D. 944, the fifth year of King Edmund as aforesaid. The same mistake occurs in the Corpus Christi College, Cambridge, MS. *Næ* 183, of the tenth century,—viz. "cccxlviiii. a passione Christi," for *cccxcviii.*, and also in the Evesham *Saxon Chronicle* where we get an event entered at MLXXX. for MCXXX.; Plummer, *Two Chronicles*, Notes, ii, 271.

^f Cf. Mr. Plummer's remark about "the progressive corruption of the numeral" in annal 755, *sc.* xxxi. *A, B, C*; xxi. *D*; xvi. *E*; *Two Chronicles*, Notes, ii, p. 45. Cf. also, "uel potius annis uel tribus," in some MSS. of Bede's *Hist. Abbatt.*, cap. xxij; the scribes mistook *xl*. for the compendium for *uel*. Plummer, "Bede," i. 386.

^g *E.g.*, the Vatican MS. cited above, note *i*, assigns *xl. anni* to an interval which other MSS. value at *lx. anni*; *u.s.*, cap. xvi., p. 159. For other instances see the same work, p. 145, *apparatus criticus*.

^h The death of the usurper Maximus is dated, in two thirteenth-century MSS. of the *Historia Brittonum*, in "anno mundi v̄. dcxc."; and Hardy in his *Introductory Remarks*,

Thus, at one period of our history, *DC.* did not mean 600, but 500, and 600 was written thus: *DC.C.*ⁱ Similarly, *DM.* meant 5,000.^k Petrie and Hardy were aware of this misuse of *D.* as I have notified; but later scholars have lost sight of the fact, and we find Professor Zimmer,^l Dr. T. Mommsen,^m Dr. W. de Gray

p. 112, note, says: "This date represents 5590; 500 being expressed, as was not unusual, by the Roman numerals *DC.* instead of *D.*, singly." There are four ways of treating this method of writing 500: 1, in the eleventh century MS. of the *Historia Brittonum* in the Public Library at Chartres (*No.* 98) only one point is used, and it is placed between *d* and the supernumerary *c*; 2, in the Vatican MS. of the same work, which was written in the eleventh century, and in the Durham MS. of the same (*B. II.* 35), which was written in the twelfth century, there is only one point, which is placed immediately after the supernumerary *c*; 3, in the fourteenth century (inedited) Chronicle of the Cistercian monastery of Pipewell the supernumerary *c* is raised above the line and the point is placed beneath the letter; 4, in a fifteenth century MS. which contains an epitome of British history, and which was printed by Rees in his *Cambro-British Saints*, both *d* and *c* are followed by a point.

ⁱ The earliest instance known to me is one that occurs in the chronological memoranda written down in the year 737 on the *verso* of the leaf now numbered 128 of the Moore MS. of Bede's *Ecclesiastical History*. This MS. is in the Library of Cambridge University (*K.K.* 5. 16), and the passage as printed in the *Monumenta*, p. 290, is "anno *DXLVII.* *Ida* regnare coepit," *etc.*, but Mr. Henry Sweet in his "Oldest English Texts" (Early English Text Society, No. 83, 1885), p. 149, has printed "anno *DCLVII.*" This annal, in the *Chronologia Brevissima*, which is printed in the *Monumenta*, is identical in date with that in the *Recapitulatio* in Bede's *History*, and Mr. Sweet's edition shows a serious discrepancy in this particular, but Mr. Sweet is correct. I am indebted to Mr. Francis Jenkinson, the Cambridge University Librarian, who very kindly looked at the MS. for me, for the following explanation: What was written *first* was *dcluii.*; the *c* was altered to *x*; and by the original scribe, Mr. Jenkinson feels pretty sure. Now, *dcluii.*, when applied to *Ida*, can only mean A.D. 557 as the date of his beginning to reign, and the adoption of that date by English historians would make the different accounts of the reigns in Northumbria before the battle at the Idle tally with each other.

^k *E.g.*, in Ethelwerd's *Chronicle* the death of Ealdferth, king of the Northumbrians, is dated *A.M.* *DMDCCCC.* = 5,900.

^l *Nennius Vindictus*, 1893, p. 206, where Prof. Zimmer is confused by the difficulty already cleared up in Hardy's *Remarks*, *u.s.*, note *h.*

^m In Dr. Mommsen's edition of the *Historia Brittonum* the point after *C* is always ignored. On p. 145 he annotates *DC.* "*l* 5, requiritur *D* pro *DC.*," and other instances occur of the supernumerary *C* on the same page. At the foot of p. 123 he gives a scheme of early British chronology, taken from the Durham MS. *B. II.* 35, of the twelfth century, of which he remarks that nothing can be gathered from it ("neque quicquid inde colligitur"). I am personally indebted to the kindness of Canon Fowler,

Birch," and the Rev. Charles Plummer^o confused by it. Even Dr. Pertz appears not to have quite understood it.^p

§ iii. *The Latin Ordinal Number and its Idiom.*

Success in determining the temporal relationship between events depends, primarily, upon exact knowledge of the several intervals of time that elapsed between them, and also upon our ability to equate with the year of our Lord's Incarnation the particular year in which one or other of the events to be considered took place. These intervals may consist of hours, or days, of weeks, months, or years, and the operation of counting the number of years, months, etc., in an interval, is regulated by two limits, or *termini*. These are the *terminus à quo*, which is known, and from which we begin to count, either up or down

of Durham, for a diplomatic transcript of these *marginalia*, and the scheme is quite coherent when one has the key, viz. "DC. = 500."

In the *Celtic Review*, April 16th, 1906, p. 371, Bodley's Librarian asserted that "No one who knew the Latin numeral system could possibly write DC for 500, or interpret it as anything but 600." This is in direct contradiction of the facts.

^o Dr. Birch, when dealing with the Alfredian charter No. 549, "C.S.", dated DCCCC.LXX.VIII., did not explain the peculiarity. Dr. Birch cites this charter as dated "979 for 880"; ii, 169. [2080. d.]

^p Mr. Plummer, *Two Chronicles, Notes*, ii., pp. 96, 97, speaks of the error of the scribe of the Canterbury MS. of the Chronicle (*F*), who calendared Bp. Aethelwold of Winchester's death in DCCC.LXXX.III., instead of 984, as "mechanical"; but many instances of this sort are due to confusion, and DC.-dating may be the cause of the remarkable errors left unexplained by Dr. Henry Richards Luard, in *Annales Monastici* ("R. B. SS.," No. 36, 1864), vol. iv., where the compiler of the Annals of the Priory of Worcester makes kings of Wessex, who reigned in the eighth and tenth centuries, the immediate neighbours, in time, of Aethelwulf who reigned in the middle of the ninth. Thus: 850, Cenwulf is slain; 851, Adulph grants Peter's pence; 855, Edred of Wessex dies.

^p The first year in the Chronicle of St. Waast's at Arras (*Annales Vedastini*), is A.D. 874, and so Pertz printed it (*Scriptores*, II., p. 196), but with the annotation—"Cod. [*i.e.*, MS.] DCCCC.LXXIII. et ita deinceps." Pingré speaks in his *Cométographie*, Paris, 1783, of a chronicle of Saumur which dates the comet of 892 in *anno DCCCCXCII*; i. 359. The death of Werburg, "quondam regina Merciorum tunc uero abbatissa," is assigned by Symeon of Durham, ii, 50, to 782. But she was daughter of King Wulfhere, who died in 675, and widow of King Ceolrêd, who died in 716. Symeon is clearly quite wrong. Perhaps he had DC.CCXXXII. before him and misread the third c as L.

the stream of time ;^a and the *terminus ad quem*, which may either be known, or be the undetermined object of research. These *termini* have an important bearing upon computation. There are four different ways of treating them, and three different results follow, severally, upon the adoption of these different methods. To wit—both terms may be excluded ; both terms may be included ; the prior term only may be included ; or the posterior term only. In English computation, we do not include both limits without saying so, and, in the majority of such cases, we employ the cardinal number. For instance : no one has any doubt about the interval of time referred to in the phrase “ten years ago.” As used in the present year that can only mean A.D. 1897 ; *i.e.*, 1907 *minus* 10. Similarly, the phrase “every fourth year” indicates in the English idiom that three years intervene between the *termini* : thus :—4 ; 1, 2, 3, 4 ; 1, 2, 3, 4. In Latin computation, however, the ordinal number is used, in the vast majority of cases, and both terms are included in the result. A few examples will make this point quite clear, and show how important it is :—

- a. In the case of the Julian calendar day : The datum *ante diem quartum Kalendarum Aprilis*, means the third day before the Kalends of April, viz., March 29th.

Thus—March 29th, 30th, 31st ; April 1st.

a.d. iiii., iii., ii. ; Kal. April.

- b. The ancient Romans and Albans did not divide their months into weeks, as we do, and the country people were accustomed to go to the city of Rome at regular intervals, the incidence of which was quite independent

^a In his *Bede*, ii, p. 375, l. 1, Mr. Plummer speaks of “two series of dates” differing “by a year if the *terminus ad quem* from which they are reckoned so differs.” What we must understand by this is that the two series of dates will differ by one year if the *termini à quo* from which they are reckoned so differ. Conversely, we find Mr. Belfort Bax—in his book on *The Problem of Reality*, 1892, p. 60—arriving at a *terminus à quo*. Mr. Belfort Bax’s views of what he names—“the double flow of time” (*ibid.*, 125–128) are dominated by colloquialisms such as “the coming time,” “the past time,” and the like ; and he does not distinguish between times (*tempora*) and Time itself. Times, *i.e.*, dates and periods, are the accompaniment of the idea of Causation and are not Time. The computists who wrote treatises, like Bede, *De Temporibus*, *De Natura Temporum*, and Scaliger, *De Emendatione Temporum*, recognised this.

of the lunar month. "*The Nundinae*," says Dion Cassius, "were celebrated at Rome every eighth day (*nono quoque die*), and the seven days in between were spent in husbandry." The way of counting adopted includes both *termini*; thus :—

Latin—	<i>Nundinae</i> ;	<i>Nundinae</i>
	<i>dies i^a, ii^a, iii^a, iii^a, u^a, u^a, vii^a, vii^a, ix^a.</i>	

English—	The 8th day ;	1	2	3	4	5	6	7	8
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c. When the Alexandrian astronomer Sosigenes rectified the Roman calendar, in A.U.C. 708 (=B.C. 46), he directed that the bissextile day should be intercalated in the first year of every *quadriennium*, as Censorinus correctly reports. But the phrase Sosigenes used appears to have been misunderstood, and another Latin one—namely, *quarto quoque anno*, *i.e.*, every third year—substituted for the correct one. The pontiffs accordingly intercalated in the first year of every *triennium*. Instead, therefore, of intercalating in series *a* of the years of Rome, as enumerated below, they intercalated in series *b*, as follows :—

a: 709, 713, 717, 721, 725, 729, 733, 737, 741, 745.

b: 709, 712, 715, 718, 721, 724, 727, 730, 733, 736, 739, 742, 745.

In the last year enumerated, *i.e.* A.U.C. 745 (= B.C. 9), it was discovered that the bissextile day had been intercalated twelve times since Cæsar's edict, instead of nine times, and the Emperor Augustus decreed that three bissextile years should be passed over, and that the next intercalation should be effected in A.U.C. 761 (= A.D. 8). After that year it was ordered to be made "*quinto quoque anno*," *i.e.*, every fourth year.^b Prebendary Browne blamed the pontiffs for this,^c even though he knew in what respect the Latin idiom was peculiar.

^b The chief authorities for the regulation made by Augustus, and its causes, are : Pliny, *Naturalis Historia*, xviii, § 211 ; Suetonius, *Augustus*, c. xxxi ; Dion Cassius, LV, vi, vii ; Censorinus, *de Die Natali*, xxii, 16 ; Solinus, c. i. ; Macrobius, *Saturnalia*, I, xliii, XII, xxxiii. Vide Rühl's *Chronologie*, p. 20, n. 1.

^c *Compendium*, Introduction, note A, p. 457.

Professor Rühl blames Sosigenes;^d but he does not appear to be aware of the computistical and idiomatic fact which lies at the root of the difficulty.

The rule that is necessary to be observed is—Never render the Latin ordinal numerals literally when they occur in a computistical formula, but reduce the numerical value of the datum by unity.^e

^d *Chronologie*, p. 17. Professor Rühl cites Pliny, *ut supra*, note *b*, who says: "Et Sosigenes ipse trinis commentationibus, quamquam diligentior ceteris, non cessavit tamen addubitare ipsemet corrigendo."

^e This idiom is ignored by scholars who deal with the history of Saxon times. Cf. Bede, II., v, p. 89, where Ethelbert's death is assigned to A.D. 616: "qui est annus *xxi^{us}* ex quo Augustinus . . . missus est." 596 (the date of the mission) *plus xxi^{us}* = 616. Mr. Plummer, ii, 85, says this is "probably" correct. Bede, IV., v, p. 214, dates the death of King Oswy "anno dominicæ incarnationis *dclxx^{mo}*, qui est annus secundus ex quo Britanniam uenit Theodorus." Mr. Plummer, ii, 211, 358, 361, *et al.*, wishes to correct Bede's date for Oswy's obit and to assign it to A.D. 671, and he comments upon this passage, thus: "February 15th, 670, is within the first year of Theodore's arrival, seeing that he did not reach England till May, 669." But *annus secundus ex quo* really is "the first year after," and Mr. Plummer was wrong to retard Oswy's death to February 15th, 671, which is in the second year after, *i.e.*, *anno tertio ex quo*. The same difficulty faces Mr. Plummer in *Historia Abbatum* (*auct. anonymo*), § 7, p. 390, where we read that "Secundo fundati monasterii anno Benedictus . . . architectos . . . de Gallia Britanniam perduxit." In *Historia Abbatum* (*auct. Baeda*) § 5, p. 368, this introduction of artificers is dated "Nec plusquam unius anni spatio post fundatum monasterium interiecto . . ." Mr. Plummer dates the introduction in 675 or 676, and says that the difference between the two authors need not be great (p. 358), not more than a month or two (p. 373); he also suggests that as Bede certainly had the *Hist. Anon.* before him we must suppose that he deliberately corrected it. But this is groundless, for there is no difference in date. "Anno secundus ex [anno *dclxxiiii.*] quo fundatum est monasterium" is *annus dclxxv.*, and no other. Several other cases occur in the *Historia Abbatum* of dates computed *ex quo* with the ordinals, but they are all misunderstood. Others, again, occur in connection with the era of the Saxon Advent: cf. an article on "The First Settlement of the Saxons in Britain," in the *Zeitschrift für celtische Philologie*, Bd. iii, p. 506, 1901. Of the latter errors one is due to Bede himself. He assigns *annus clxxx.* to A.D. 627 (II., xiv, p. 113). But "Annus ab aduentu Anglorum in Britanniam circiter *clxxx^{mus}*" = 180th + 447, *i.e.*, A.D. 626, and I believe this to be the true year of Edwin's conversion. In the *Calendar of Dates mentioned in the Saxon Chronicle*, ii, cxlv, Mr. Plummer equates the datum "on pone feowertegan dæg ofer midne winter," *i.e.*, on the 40th day after Christmas, with February 3rd, instead of February 2nd. Cf. *Notes*, ii, 49, *ad ann.* 763, where the right date is given.

Ethelwerd dated the coronation of King Edward when "factus uidetur numerus annorum ab aduentu Christi . . . nongentesimus pleniter ordo," and when "defluente

This idiom is not always rendered correctly, even in Dr. Charlton T. Lewis's Latin Dictionary; *v. sub voce* "Nonæ." But he utters the true doctrine, *sub voce* "ante." It is rendered literally, and, consequently, incorrectly, in J. E. Riddle's Latin-English Lexicon, 1849 (*v. sub v.* "quisque"); in Dr. Liddell's Greek Lexicon 1872 (*v. sub v.* "ἡμέρα"); and it is incorrectly explained in Dr. Benjamin Hall Kennedy's *The Public School Latin Grammar*, 1876, p. 154, at foot, and p. 573, "Nonæ."

§ iii. *The Computation of the Roman Calendar Day.*

Exact knowledge of the Julian Calendar is indispensable for students who wish to deal at first hand with ecclesiastical chronography. The appearance of the tables of the months of the Roman Calendar, which are given in the books on technical chronology, is familiar. These tables seem to make it easy to equate and reduce calendar dates, but numerous errors arise from the use of such crutches.^a

annorum numero centesimo [MS. *centeno*] ex quo proavus eius Egbyrht continebat praesentia eius regna"; *Monumenta*, i, p. 500. Mr. Stevenson (with "E.H.R.", *u.s.*, Introduction, § i, note g, *cf. Athenæum*, March 19th, 1898, p. 373), professed to date Edward's coronation in June, 900, "on the authority of Ethelwerd," and made two computistical mistakes when doing so, for it is evident that in June, 900, the number of 900 years from the Incarnation was not fully made up; and when Mr. Stevenson says (*Athenæum*, *u.s.*, col. 2) that Ethelwerd fixes the coronation "clearly and unmistakably in the year 900, and as occurring a century after . . . the accession of Egbert in 800," he shows quite clearly that he has not appraised the Latin idiom correctly, for *annus centesimus ex quo* = the 99th year after.

^a In Mr. Plummer's *Bede* the following corrections must be made of erroneous reductions into English of Roman calendar dates. Text, IV., xxiii., p. 267, margin, "xiii. Kal. Iuniarum" is May 20th, not "21st"; IV., xxviii., p. 277, margin, "pridie Nonas Maias" is May 6th, not "5th"; V., xxiii., p. 349, margin, "vii. Iduum Maiarum" is May 9th, not "April 25th"; *Hist. Abbatt.*, B., § 8, p. 372, margin, "Nonas Martias" is March 7th, not "6th" (given correctly, *Notes*, vol. ii.); *Hist. Abbatt. (auct. anon.)* §§ 16, 17, p. 393, margin, "iiii. Iduum Maiarum" is May 12th, not "13th," as here and Introduction, p. xiv, l. 13; and vol. ii, *Chronological Table*, p. xxvii, col. 4; and p. 364, *Notes*; *introit*, l. 3. Mr. Plummer has confused the date of Abbot Ceolfrid's death and burial. The abbot reached Langres on "viii. Kal. Oct.," *i.e.*, September 24th; he died the same afternoon after Vespers on "vii. Kal. Oct.," *i.e.*, when September 25th had ecclesiastically commenced, and he was buried on the morning of "vii. Kal. Oct.," *i.e.*, on September 25th. Mr. Plummer gives the following equations: *Introd.*, p. xv, l. 1, death on September 24th, correctly; *Hist. Abbatt.*, B., p. 386, margin, burial September 26th; *Hist. Abbatt.*

Computists, as I have already indicated, ought not to rely upon inspection. The facts I am about to enumerate should be kept steadily in mind, and the use of tables should be eschewed.

1. The Roman calendar month had four sections : the first, of one day only, being the *Kalendae* or Calends. On this day, in pagan times, the number of days forward to the *Nonae* or Nones, was counted aloud by the priest. The second section consisted of either four days or six, and ended with and included the Nones. The third section always consisted of eight days, and ended with and included the *Idus*, or Ides. The fourth, and last, ended on the last day of the month. It comprised 18, 17, 16, or 15 days, according to the length of the month, and the incidence of its Ides.
2. The memory-word MOMJUL helps us to remember that in the months of M(arch), O(ctober), M(ay), and Jul(y), the Nones and the Ides fall upon the 7th and 15th day of the month respectively. In other months they fall on the 5th and 13th respectively, the Nones always coinciding with the eighth day before the Ides.
3. The days are enumerated in retrograde order, counting from the special day that the section they belong to ended with, whether *Nonae* or *Idus*, of their own month, or *Kalendae* of the following one. Both terms of the series are counted as it was explained above, Chap. i, § iii.
4. The several days next before the head-days, though called "Pridie Nonas," "Pridie Idus," and "Pridie Kalendae" in classical times, were frequently dated *II. Non.*, *II. Id.*, *II. Kal.*, in medieval ones.

In order to compute the modern equation of a Roman date we must bear in mind the facts of which the memory-word MOMJUL is the

(*auct. anon.*), p. 400, § 32, margin, death, September 25th; p. 402, margin, l. 2, reaches Langres, September 25th; l. 6, death and burial, September 25th, 26th; *Notes*, ii, p. 375, l. 4, death, September 25th. Mr. Plummer's difficulties with Ceolfrid's obit are attributable to the fact that he was not aware that Bede's calendar-day changed its date at Vespers. In *Notes* to the Chronicle, p. 300, "ii. id. Mar." is turned into March 11th.

indicator, and also the difference between the Latin idiom and modern custom. On account of that difference, we deduct unity from the date number in the case of dates which fall in either of the two sections of the month ending with the Nones or with the Ides, and we subtract the remainder from the age of the month on either of the two head-days concerned. In the case of dates which fall in that section of the month that expires with it, we deduct unity from the date number on account of idiom, and then subtract the remainder from the tale of days in the month, *plus* 1 for the Kalends of the following month. For instance :—

- a. We are required to equate *ante diem III. Nonas Martias*. March comes in MOMJUL; therefore its Nones fall on the 7th of the month. *III. minus* 1 (for idiom) = 2; *7 minus* 2 = 5; \therefore *III. Non. Mart.* = March 5th.
- b. Again, *a.d. VIII. Idus Aprilis* is to be equated. April does not come in MOMJUL; therefore its Ides fall on the 13th of the month. *VIII. minus* 1 = 7; *13 minus* 7 = 6; \therefore *VIII. Id. Apr.* = April 6th.
- c. The modern equation of *a.d. XVIII. Kalendas Novembres* is sought. October has 31 days; *31 plus* 1 (for *Kal. Nov.*) = 32; *32 minus XVIII.* (*minus* 1, for idiomatic difference) = October 15th. But October comes in MOMJUL, therefore its Ides fall on the 15th; consequently the datum is a false or impossible one, and must be rejected.^b

Conversely, to turn an English calendar date into Latin, we must always bear in mind the word MOMJUL, and the idiomatic difference. In the case of days falling before the Nones, or between the Nones and the Ides, we add unity to the number of the head-day of the section we are dealing with, on account of idiom, and subtract the

^b Similarly, Florence of Worcester, by a remarkable oversight, dates the death of King Alfred's daughter Æthelflæd "*xix. Kal. Iulii*," which is impossible, as only January, August and December have *xix. kal. mensis subsequentis*. Mr. Joseph Stevenson—and this in a modern is less remarkable—proposed to clear up a supposed error in Bede's *Historia* by "amending" "*xix. Kal. Januar.*," the true date of Aldfrid of Northumbria's death, to *xix. Kal. Iun.* (cf. Plummer, *Bede*, ii, 306, l. 7).

date-number therefrom. For instance: What is June 6th? June does not come in MOMJUL, therefore its Ides fall on the 13th. $13 \text{ plus } 1 \text{ minus } 6 = 8$; \therefore June 6th is *ante diem VIII. Idus Iunias*. Similarly—What is May 2nd in Latin? May comes in MOMJUL, therefore its Nones fall on the 7th. $7 \text{ plus } 1 = 8$; $8 \text{ minus } 2 = 6$; \therefore May 2nd = *a.d. VI. Nonas Maias*.

The turning of dates that fall after the Ides of the several months is equally simple. To the tale of days in the month, *plus 1* for the Kalends of the following month, we add unity, on account of idiom, and then subtract the date-number therefrom. Thus—What is November 15th in Latin? November does not come in MOMJUL, therefore its Ides fell on the 13th. 30 days in November *plus 1* (for *Kal. Dec.*) *plus 1* (for idiom) = 32; $32 \text{ minus } 15 = 17$; \therefore November 15th = *ante diem XVII. Kalendas Decembres*.

§ u. The Equation of Years in different Eras and in Subsidiary Intervals.

In order to reduce annuary data given in one era, to the count and style of another, it is necessary to know which Julian year is the *nexus* of the two eras. For instance—the era of the City of Rome, according to the calculation of Varro, and the era of our Lord's Incarnation, according to Dionysius Exiguus, find their *nexus* in the Julian year diversely styled A.D. 1, and A.U.C. 754; the era of the coming of the English into Britain, as used by Bede, and the era of the Incarnation, according to Bede's earlier custom, find their *nexus* in the Julian year diversely styled *Annus Sextae Aetatis CCCCL.*, and *Annus Aduentus Saxonum in Britanniam I.*; the era of the *Annales Cambriae* and that of the Incarnation according to Dionysius, in A.D. 445 and *Annus I.*; and the era of Spain and that of the Incarnation, in the Julian year styled A.D. 1, *Erae xxxix*.

In the case of those series of years which partly antedate the Christian era, the convenient method of equating the proleptic portion of the older era with an infinite series of years enumerated in retrogression as B.C., or *ante Christum natum*, or the like, has long since been adopted. The equation of years in the proleptic portion of

the older eras with years in the infinite series referred to, is achieved by deducting the given annuary numbers from the number of the nexus-year. For instance: *Erae xxxix.* is A.D. 1, therefore *Erae xxv.* is 39 minus 35, *i.e.*, B.C. 4; and *Erae i.* is 39 minus 1, *i.e.*, B.C. 38. Similarly, A.U.C. 754 is A.D. 1; therefore A.U.C. 750 is 754 minus 750, *i.e.*, B.C. 4; and A.U.C. 1. is 754 minus 1, *i.e.*, B.C. 753.

The equation of years counted in other eras than that of the Incarnation, is achieved, in the case of the earlier ones, by deducting the number of the nexus-year, minus 1, from the given year-number: *e.g.*, A.U.C. 754 is 754 minus (754 minus 1), *i.e.*, it is A.D. 1; A.U.C. 761 is 761 minus (754 minus 1), *i.e.*, it is A.D. 8. Similarly, *Erae* 39 is 39 minus (39 minus 1), *i.e.*, it is A.D. 1; and *Erae* 100 is 100 minus (39 minus 1), *i.e.*, it is A.D. 62.

When equating years counted in later eras, or in subsidiary intervals, with years computed in the era of the Incarnation, it is advisable to regard the era, or interval, as a group, and to remember that the first year of the group coalesces with the nexus-year. If no allowance is made for this the reduction attempted must yield an erroneous result, and there will be a parachronism of one year. For instance: Annus I., in the era of the *Annales Cambriae*, is A.D. 445, and Annus III. is not 445 plus 4, *i.e.*, 449,^a but 445 plus 4 minus 1, *i.e.*, it is A.D. 448. Similarly, Annus I. in the era of the coming of the Angles to Britain, counted according to Bede's practice, is A.D. 447, and Annus CLXXX. is not A.D. 627, as Bede makes it, in his *Historia*

^a Mr. E. W. B. Nicholson, when assailing the comments made by my friend, Mr. A. W. Wade-Evans, upon the era-year of the *Annales Cambriae*, in the *Celtic Review* in 1905, remarked (p. 369, *u.s.*, Chap. i, § ii, note m), that "the *Annales* do not give the number 445 at all, while both Mommsen and Phillimore, their latest editor, reckon their Annus I. as 444." The objection that the "*Annales*" do not give 445 is inconsiderate, for they do not give 444 either. It was J. Williams ab Ithel who gave that number, and perpetuated that mistake by copying earlier editors. If anyone will take the trouble to read the first nine annals in his and other editions, with the necessary attention, he will perceive how the error came to be made, and why Petrie, Skene, Phillimore, Mommsen and Bodley's Librarian are wrong, and also why Mr. Wade-Evans is right. All editors of the "*Annales*" equate Annus IX. with A.D. 453; consequently, as Annus I. is viii. years before Annus IX., it must be equated with 453 minus viii, *i.e.*, Annus I. = 445.

Ecclesiastica (II., xiii., p. 113), but 447 *plus* 180 *minus* 1, *i.e.*, it is A.D. 626. Certain mistakes in recent historical work are attributable to the initial error of adding to a nexus-year all the years of an interval the posterior term of which is required to be equated with a year in the era of the Incarnation.

§ vi. *The Computation of the Annuary Datum by means of Past Periods.*

In the Venerable Bede's *Chronica Minora*, which is appended to his *Liber de Temporibus*, there is a chronological note, prefixed in several MSS. to cap. xxii. of the *De Sexta Aetate*, which says: "Sexta aetas continet annos praeteritos dccviii. (the Sixth Age comprises 708 past years)."^a As the Sixth Age, or Christian Era, commences with the birth of Christ, it is obvious that, when Bede penned these words, A.D. 708 was past and gone, and, therefore, that he was writing in A.D. 709; *cf.* the article cited above, Chapter i, § iii., note *e*. In the phrase *continet annos praeteritos*, we have evidence of a method of counting the years from an epoch, which has long since fallen into disuse, and which consisted in ignoring current, and, therefore, incomplete years, and dating by the number of years actually past and completed. When we meet with this peculiarity it is clear that we must turn it into English with care, and add unity to the sum of the *anni praeteriti*, or completed years, in order to date the current one correctly, and according to modern custom. For instance: in the Paschal Canon of Victorius of Aquitaine, *Praefatio ad Hilarum*, p. 8 (ed. Mommsen, *Chronica Minora*, vol. i, *M.G.H.*, ix.) we are told that—"Passum autem Dominum n. I. C. peractis v.cc.xxviii annis ab orto mundi . . . monstratur." This does not mean that the Passion of our Lord was shewn by Victorius to have taken place in *anno mundi* 5228, the usual rendering of the passage, but, when 5228 years had passed away, and, therefore, in A.M. 5229.

Modern scholars would appear to be unacquainted with this

^a *V.* "The Complete Works of Bede," ed. J. A. Giles, 1843, in *Patres Ecclesiae Anglicani*, vol. vi, cap. xiii, p. 130.

computistic method. I have already commented upon Mr. W. H. Stevenson's mistaken treatment of one passage which is informed by it; *v. supra*, Chapter i, § iii, note *e*. Mr. Plummer, too, in the *Saxon Chronicle* misunderstands it,^b and seeks to correct what is in no need of correction. The same remark applies to the late Dr. Mommsen,^c and to Professor Rühl.^d Two or three instances of this

^b At the commencement of the Parker MS. of the *Saxon Chronicle*, ed. Plummer 1892, i, 2, Cerdic's invasion is dated—"þý geare þe wæs ágân fram Cristes acennesse .cccc. wintra *ond* .xciii. wintra"—In the year in which 494 winters had passed away since the Incarnation. As 494 years had elapsed, it is clear that the invasion could not have taken place before 495, and that agrees with the statement in annal 495. Mr. Plummer overlooks this, and says that the *Praeface* puts the invasion of Cerdic and Cynric in 494.

^c *V. Bedae Chronica Maiora*, ad a. 725; *eiusdem Chronica Minora* ad a. 703, ed. Mommsen, 1895, *Chronica Minora*, iii, 226, note 3, where that editor did not treat "continet annos praeteritos DCC.VIII." correctly, but rendered it as if it were *anno* DCC.VIII. In his edition of the *Historia Brittonum*, *Chronica Minora*, iii, 145, 146, he dealt with the formula *peracti sunt anni* . . . in the same way. In three MSS. of this work we get:

"Ab Adam uero usque ad passionem Christi anni sunt v.cc.xxviii.

"A passione autem Christi peracti sunt anni DCCCLXXIX.

"Ab incarnatione autem eius anni sunt DCCCCXII, . . . fiunt igitur ab exordio mundi usque in annum praesentem vi.c.viii."

Dr. Mommsen objected to this (*u.s.*, p. 146, note 1) saying that the year of the Incarnation 912 is A.M. 6107. This confirms the statement it was intended to rectify, for Mommsen did not perceive that A.M. 6108 is the only *annus praesens*, or current year in the *indiculus* of the particular MSS. in question, and that 879 *a passione*, 912 *ab incarnatione*, equate 6107 *ab exordio mundi*, and are all three *anni praeteriti*, or completed years.

^d In his *Chronologie*, p. 73, Professor Rühl gives the following passage as an example of dates which cannot be reduced in any way because they convey a contradiction ("auf keinerlei Weise reduziert werden können, weil sie einen Widerspruch in sich enthalten"): "Euoluto sane ab incarnatione Domini curriculo DCCCCXXXVIII. annorum sexta hora dominici diei, xii. kal. Septembrium," etc. The period of 938 years had elapsed; therefore the year of the era that was current was 939. Professor Rühl, as I pointed out above, Introduction, § ii, note *u*, denied the existence of other eras, but in the article in the *Zeitschrift für celtische Philologie*, already cited *supra*, Chap. 1, § iii, note *e*, I have given numerous instances of a method of computing the years of the Incarnation which differed from the Dionysian one, and which began to count three years earlier than Dionysius did. It is this method that Rainer, the author of the treatise *de Miraculis S. Gisleini* ("M.G. SS.," tom. xv, p. 584), made use of when he computed the date we are considering. Now, 939 = A.D. 936, which has Sunday letters CB., and *xii. kal. Sept.* (= Aug. 21st) has ferial letter b. Therefore, as the day was a Sunday, it had Sunday letter B, which is what the data require.

use are discoverable in the ninth-century *Saxon Chronicle*,^e and many more are to be found in Ethelwerd's.^f The formulas the latter employs are very numerous, and they are always rendered heedlessly, as if they were equivalent to *anno*.^g

§ *iii. The Computation of Regnal and other Official Years.*

A.

The word "regnal" is used to describe years, or twelve-months, that are current from either the day of a king's accession, or from that of his recognition, election, or coronation. When Sir Nicholas Harris Nicolas examined the use and meaning of this word, he reported that it did not occur in any of the dictionaries of his time: *Chronology*, p. 283, note. He quoted, as follows, a passage written by Hopton

^e Other instances of computation by a past period may be found in the *Chronicle* at the years 6, 33, 606, 655; and an important one in the *Praeface* which dates the work, but which Mr. Plummer omitted to treat. This is: "ƿa wæs āgānccc. ond .xcvi. wintra ƿæs ƿe his cyn ærest Westseaxna lond on Wealum geodon." If 396 years had passed away since Alfred's ancestors first conquered the land of the West-Saxons from the Welsh, it is obvious that the *annus praesens* was the one after 495 plus 396, *i.e.*, it was A.D. 892, which is the year at which the first hand in the Parker MS. leaves off.

^f Ethelwerd's formulas are interesting. They are:—

Impletus	} est numerus annorum	ab Incarnatione	{ Dominica	} etc.
Factus		a gloriosa Natiuitate	{ Saluatoris N.I.C	
Transactus		a Natiuitate	} Saluatoris	
Transmeatus		ab aduentu Christi		
Migratus		ab origine	{ mundi	
		ab initio		
		a conditione		

^g By the Rev. Joseph Stevenson in his translation of the "Chronicle of Fabius Ethelwerd," in *The Church Historians of England* (1854), vol. ii, pt. 2, p. 437; by Mr. W. H. Stevenson, *E. H. R.*, Jan., 1898, and *Athenæum*, March 19th, 1898, p. 373, and July 16th, 1898, p. 99; by Sir James H. Ramsay, *ibid.*, July 2nd, 1898, pp. 34, 35. Compare, also, *Athenæum*, December 22nd, 1900, p. 827, col. 3, where I have explained Ethelwerd's synchronisation of five years after Edward's coronation—*sc.* "tum transmeatus est numerus annorum sex millia centum a conditione mundi," as A.M. 6101 and A.D. 906 (6101 minus 5195, because A.D. 1 = A.M. 5196). Similarly, Dr. B. MacCarthy misrenders "Post octingentos uiginti quinque peractos summi annos domini," by A.D. 825; *The Annals of Ulster*, Introduction, vol. iv, 1901, p. xciv.

in the dedication of his *Concordancy of Years*, published in 1615, to Lord Chief Justice Coke. Hopton remarks that the chronological inconveniences which beset many enquirers are—

“occasioned chiefly—by the participation of every one regnal year with two ecclesian years ; because the year of any prince’s reign (as yet) began in one year of our Lord, taking part of the same, ending in the next and participating likewise thereof ; by which means when a question is made by the regnal year only, the common doubt is to which year of our Lord it answers unto ; or a question being made by the year of our Lord without mention of the regnal year, to know if it answers to the year of the king that did take beginning or ending in the ecclesian year.”

The phrase “ecclesian year” indicates the year styled “according to the computation of the Church of England.” This year began on March 25th, as I have already remarked, *supra*, Introduction, § iii. The difficulties commented upon by Hopton are always present, even when the enquirer is well acquainted with both the style of year employed and the terminal date (or dates^a) of the regnal year he is interested in. This, of course, ought to be his condition in the case of any reign since the Norman Conquest. But, in the case of a reign before the Conquest, these difficulties are greatly increased by the fact that we do not know either the terminal date of the annalistic year, nor that of the regnal year of some monarchs ; nor whether the kings of the Anglo-Saxons dated from their coronation, election, or accession. The particular questions, therefore, that we have to decide are—From which of these events did the West-Saxon kings compute the beginning of their reign ? And, are all such computations uniform ? Unless we can reply to these questions authoritatively, it is useless to draw up a table of the West-Saxon Kings of the ninth century, even approximately. But such a table is a pressing need of all students of Anglo-Saxon history and the various kinds of documents connected with Anglo-Saxon times. Sir Nicholas Harris Nicolas, speaking of the absence

^a *E.g.*, King John’s regnal years were computed from Ascension Day in one year, to the eve of that day in the next. As Ascension Day is a movable feast, each regnal year began on a different calendar date ; *cf.* Nicolas, *Chronology*, pp. 308, 346.

of such an aid to one engaged in the study of the history of England since the Conquest, remarks, *u.s.*, p. 284 :—

“ Without it he will often find himself embarrassed by the impossibility of reconciling the date of one instrument, relating to a particular affair, with other documents on the same subject. A suspicion of the genuineness of some of them will be created, and, with respect to circumstances of which the precise time is settled by other evidence, he may be led by such discrepancies into fatal errors. From mistakes in Chronology, effects are confounded with their causes ; and deductions are drawn, and hypotheses formed, on imaginary discoveries.” These “ errors, being diffused and perpetuated by succeeding writers, become part of what is called ‘ History.’ ”

Many writers assert that the regnal years of the Anglo-Saxon kings were computed from their accession ^b. But this, at least in so far as the West-Saxon reigns in the tenth century are concerned, is contrary to the weight of the evidence extant. Some, indeed, have, like Mr. W. H. Stevenson, *u.s.*, Introduction, § i, note k, denied the existence of evidence which might teach us whether the regnal years of King Alfred, for instance, were computed from his coronation or his accession. Mr. Plummer's view differs from Mr. Stevenson's, and, in *Two Chronicles*, ii, 308, he approves the opinion expressed by Dr. Theopold, who freely asserted that these regnal years, generally, were

^b Mr. Plummer's failure to recognise the possibility of regnal intervals being computed from the day of consecration is one of many reasons why he wishes to retard the death of King Oswy of Northumberland, in contradiction or correction of Bede, to February 15th, 671. He writes, “ Bede,” *Notes*, ii, 211, “ In c. 26 Bede says that Egfrid was slain in May, 685, in the fifteenth year of his reign ; but if he came to the throne in February 670, this would be his sixteenth year.” Similarly Mr. Plummer says, p. 361, “ If Egfrid came to the throne in February, 670, the 9th of the Calends of May in his fifteenth year would be April 23rd, 684. . . . ” These calculations of Mr. Plummer's are quite correct ; but we must add in each case “ from Egfrid's accession.” We do not know when Egfrid's coronation took place, and there is not the slightest necessity to correct Bede ; hence these calendar dates should teach us that Egfrid was crowned after May 20th, 670. In A.D. 670 Whitsunday fell on June 2nd, and that may have been the date of Egfrid's consecration. Tigernach is very explicit about the dates of the battle of Dunnechtain : he says—“ *xx^{mo} die mensi[s] Maii, sabbatum die factum est,*” and of Egfrid he remarks, “ *xv^{mo} anno regni sui consummato.*” We might expect that a foreign writer would count the years of the king's reign from his accession, and that a native and ecclesiastical one, such as Bede, would deem it his duty to count from the consecration.

computed from accession. Sir Nicholas Harris Nicolas, also, in his *Remarks on the Style and Charters of the Kings of England, u.s.*, p. 364, controverted Lappenberg's opinion that the Saxon kings dated from their coronation and unction, on the ground that such a proceeding appeared to be contrary to the spirit of "the old Teutonic law"; and he adduced the fact that King Edgar, who was not crowned King of Wessex for many years after his accession, dated in the first part of his reign from his accession, and towards its too-early close used the double date of his accession and coronation. The charter on which Sir Nicholas Harris Nicolas relied is cited above, Chapter i, § ii., note *d* (*v*). But the case of Edgar is not quite applicable to the argument, inasmuch as Edgar was probably crowned King in Mercia during the lifetime of his brother Edwy. I have given reasons^c for the belief that the computist who calculated the West-Saxon regnal periods in the Cotton MS., *Tiberius A. III.*, fo. 178, reckoned King Edgar's regnal years from Jubilate Sunday, May 10th, 957. This is the year at which the Saxon Chronicles of Abingdon, MSS. *B* and *C*, say "Her Eadgar æþeling feng to Myrcna rice," i.e., *In this year Edgar the Atheling began to rule over the kingdom of the Mercas*, or Mercia. Consequently, there may have been no consecration of Edgar when he succeeded to the throne of Wessex, on October 1st, 959--DCCCCLX., seeing that he had probably been crowned already. Edgar's position, therefore, was not much different from that of his predecessor, King Ethelwulf, who had been crowned during the lifetime of his father, King Egbert. The twofold instance relied on by Nicolas does not, therefore, affect the question either way.

Although Mr. Stevenson denied the survival of evidence, he decided that King Alfred's regnal years ought to be calculated from the death of his predecessor, King Ethelred. There is direct evidence as to the general practice, and it is strongly opposed to the arbitrary view that in no case are the regnal years of the West-Saxon kings computable from the date of their coronation. I have shewn in the *Athenæum*, u.s., note *c* to this section, that the confusion and uncertainty which are known and admitted to be present in the chronology of the West-Saxon

^c *Vide Athenæum*, No. 4,000, June 25th, 1904, p. 819.

kings of the tenth century, can be dissipated, or at least much reduced, by application to a displaced leaf of the older Abingdon *Saxon Chronicle*, MS. *B*. This was written in about A.D. 1000. It was copied from an original contemporary chronicle which is credibly asserted to have come to an end in A.D. 977; *v.* Mr. Plummer's Introduction, *Two Chronicles*, pp. lxxxix.-xc. In this document the total of the periods allotted to four reigns, which filled an interval of 75 years and one month, only amounts to 73 years and seven weeks. This fact and others examined in the article cited, shew conclusively that the regnal years of six kings of Wessex, in the tenth century, were not computed from the day of accession. Moreover, application to detail, and consideration of the length of the periods allotted, have established the soundness of the theory advanced by Lappenberg, namely, that the regnal years of the West-Saxon kings were computed from coronation and unction; and warrant the rejection of the view now entertained by Mr. Plummer and Mr. W. H. Stevenson, that the regnal years were computed from accession.

I reproduce the table printed in the *Athenæum* shewing the calendar dates upon which the calculations in the document of A.D. 1000 depend. The double-dating of the years is necessitated by the fact that the Old-English year began on September 1st in the South of England.⁴ Consequently, events that occurred in September, October, November and December, were allotted to the same year as the following January, and bore the same year-number. The first group of numbers, namely, the Arabic one, is the correct one for us to use; the Roman numerals are those that the events ought to be connoted by in the different MSS. of the *Saxon Chronicle*. In the third column are the regnal intervals set down in the MS.

The method of counting adopted by the computist of A.D. 1000 rejected both *termini*. In order to date the consecration exactly, all that is necessary to be done, as I have explained in the article in the *Athenæum*, is to calculate backwards from the day of the obit until the period of time allotted is passed through, when the next preceding Sunday or festival must be the date sought for. In the case of King

⁴ *Cf. infra*, Chap. vi, § *iiii*.

THE WEST-SAXON REGNAL PERIODS IN THE COTTON MS. *Tiberius A. III.*, FO. 178.

Date of the Obit.	Coronation Day.	Regnal Interval.			
		a.—in the Cotton MS.			b.—in the Saxon Chronicles.
		Years.	Months.	Weeks.	Days.
Alfred { 25-26 October, 900-DCCCCI.	? St. Mark's Day, April 25, 872 ...	28	6	—	—
Edward { 16-17 July, 925 ...	Whitsunday, May 31, 901 ...	24	—	—	—
Athelstan { 26-27 October, 939-DCCCCXI.	Sunday, September 3-4, 925-DCCCCXXVI.	14	—	7	3
Edmund { 25-26 May, 946 ...	St. Andrew's Day, Nov. 30, 939-DCCCCXL.	6	6	—	* butan " n. nithum
Edred { 22-23 November, 955-DCCCCXVI.	Sunday, October 11, 946-DCCCCXLVII.	9	—	6	—
Edwy { 1-2 October, 959-DCCCCCLX	Conversion of St. Paul, January 25, 956 ...	3	—	36	butan ii. dagum
Edgar { 7-8 July, 975 ...	Jubilate Sunday, May 10, 957 ...	18†	—	8	2

* MS. ii.

† MS. xvi.

- Alfred's reign we have two regnal periods in the Chronicles and Florence, and we need have no hesitation in applying the shorter one, namely, $28\frac{1}{2}$ years, which is found in both authorities, to the date of the obit, namely, October 25–26, A.D. 900–DCCCCI., in order to compute the date of Alfred's coronation approximately. The longer one, namely, $29\frac{1}{2}$ years, which is given by Florence, only, of the two, comprises the whole period from Alfred's accession, a little after Easter, April 15th, 871, to his death, in A.D. 900.

B.

The statements made by chroniclers and hagiographical writers as to the dates of episcopal consecrations and obits, the duration of episcopates, and other ecclesiastical and personal offices, are frequently very minute, and ordinarily of great value. But the Saxon Chronicles throughout the ninth century are singularly devoid of such notices. For this, and other reasons, the consideration of the personal chronology of the bishops of that time is deferred to a later part of this essay.

CONVENTIONAL DATA.

BOOK I. THE DAY.

§1. The Different Kinds of Computistical Days.

The period of twenty-four hours that the moderns call a day necessarily includes the night-season. In ancient times the day commenced at different hours among different peoples. The astronomical day commences at 1 o'clock, *p.m.*, on one day, and ends at 1 *p.m.* on the next. It is divided into twenty-four hours, which are numbered from 1 to 24. We are only concerned with its ratio in so far as that is connected with the equation of times. The datary,^a however, is bound to make himself acquainted with the characteristics of the computistical days, of which there are four

^a A datary is one who is skilled in dates, and Fuller used the word in that sense: *Church History*, III, iv, 8. The *datarius* was and is that officer of the Papal Chancery (the *Dataria*) who affixes the *datum Romae* to Papal Bulls and similar documents.

sorts. These are—the *Dies Naturalis*, or Natural Day; the *Dies Lunaris*, or Lunar Day; the *Feria*, or Civil Day; and, lastly, the Ecclesiastical Day.

These are all computistical days, and we will consider their peculiarities in the order in which they have been enumerated.

CHAPTER II. THE NATURAL DAY.

§ i. *The Definition of the Term.*

The beginning of all our knowledge of times springs from the recognition of the certainty of the recurrence, in regular order, of the rising up and the going down of the sun. An astronomical writer, who is distinguished by the grace and power of his imagination, as well as by the beauty of his prose style, has sketched for us the supposed feelings of primeval man when he realised the possibility that the light of the setting sun might not return again to enlighten the world. In that early and far-distant period, the only points of time that could have been regarded as fixed were sunrise and sunset. But when mechanical methods of observing the sun's behaviour in the terrestrial heavens had been devised, it must have been noticed in sub-tropical regions, as well as temperate ones, that these points, or marks of time, were not fixed, either actually or relatively to each other. Then, without doubt, the discovery would be made that the interval of time between these points, starting from a certain phase in the cycle of variation, expands from day to day, until it reaches a maximum length, when it begins to contract and continues to do so until it has returned again to the minimum. After that, the process, with all its phenomena, is repeated and continued. Eventually, when the experience gained from observations carried on through very many centuries had taught astronomers how to lay down the meridional line correctly, it was argued, and accepted as true, that the only fixed point of time was the moment of high noon, when the shadow of the gnomon was not deflected either to the right or to the left of this line.

These considerations limit the number of possible and well-defined commencements of the day to three: namely—sunrise, at which

the Babylonians, Assyrians and Persians, commenced ;^a high noon, at which it is said the Umbrians and Athenians did so ;^b and sunset, at which the Egyptian and the Jewish day began.^c The period during which the sun is above the horizon was named "Dies Naturalis," by the Romans.

§ ii. *The Course of the Natural Day.*

It is obvious that the only commencement of the day proper to be observed by those who compute the Natural Day is that which coincides with sunrise. Similarly, the Natural Day must end with sunset. Among the Anglo-Saxons the period during which the sun is above the horizon was called "a day": "we hâtað ænne dæg fram sunnan upgange oð æfen" (*i.e.*, we call from sunrise to evening a day).^d

§ iii. *The Subdivisions of the Natural Day.*

In company with nearly all the nations of antiquity the Romans divided the Natural Day into twelve equal hours.^e These differed in length as the day itself expanded or contracted.^f Consequently, it is only at the period of the equinoxes that the nocturnal hours can be equal in length to the diurnal ones.

The subdivisions of the day, as opposed to night, and their Anglo-Saxon names, are as follows :—

^a "Quem [*sc.* Moysen] Hebraei Chaldaei et Persae sequentes iuxta primae conditionis ordinem diei cursum a mane ad mane deducunt." . . . Bede, *De Temporum Ratione*, cap. v., *apud* Migne, tom. xc, col. 313.

"Apud Chaldaeos ab ortu solis usque ad ortum solis." Bede, *De Diuisionibus Temporum Liber*, cap. viii.; *apud* Migne, tom. xc, col. 656.

^b "Umbri et Athenienses a meridie ad meridiem dies suos computare maluerunt ;" Bede, *De Temporum Ratione*, *u.s.* "Apud Hebraeos ab hora sexta usque ad horam sextam quia noctem non computabant Hebraei." *De Diuisionibus Temp. Lib.*, *u.s.*

^c "Aegyptii ab occasu ad occasum." Bede, *u.s.* "Apud Aegyptios ab occasu solis usque ad occasum solis." *De Div. Temp. Lib.*, *u.s.*

^d Bouterwek, *Screadunga*, 24, 2.

^e "Jesus answered, Are there not twelve hours in the day?" St. John xi, 9.

^f The German *Lichttag*; *cf.* Professor Rühl, *Chronologie*, p. 7.

LATIN.				ANGLO-SAXON.			
dilūcūlum	...	...	<i>the dawn</i>	...	...	dagung (795, 802, <i>E</i>).	dæg-rima (1122, <i>ad fin.</i> , <i>E</i>).
sōlis ortus	...	...	<i>sunrise</i>	...	...	sunnan upgang.	
māne	...	...	<i>morning</i>	...	...	mergen, morgen, morgen-tīd.	
ante meridiānum tempus			<i>fore-noon</i>	...	...	æŕ-mæł.	
meridiēs	...	...	<i>midday</i>	...	...	mid-dæg.	
pomeridiānum tempus			<i>afternoon</i>				
sōlis occāsus	...	...	<i>sunset</i>	...	...	sunnan setlangang (773, <i>E</i>).	
uesper	...	...	<i>even</i>	...	...	æfen-tīd.	
crepusculum	..	...	<i>dusk</i>	...	...	æfen-rima, æfnung.	

CHAPTER III. THE LUNAR CALENDAR DAY.

§ i. *The Definition of the Term.*

The term *dies lunaris*, or "lunar day," is an arbitrary one which has no connection whatever with lunar time. The so-called lunar day is a nominal day, and it is made up of two portions: first, a period of local^a terrestrial time during the whole of which the sun is below the horizon; second, the period next subsequent thereto during the whole of which the sun is above the horizon.

§ ii. *The Course of the Lunar Day.*

The Lunar Day, therefore, commences with sunset, includes the night-season and the following natural day, and ends with sunset. Computists are led in this matter by the directions of Moses, who said that the evening and the morning made the day,^a and through whom the Israelites were commanded to keep their Sabbaths from evening

^a The old computists were aware of the existence of differences in local terrestrial time: cf. Bede, *De Natura Rerum*, cap. xxiii., ed. Migne, *Patrol.*, tome xc, coll. 242, 243:—*Defectus solis ac lunæ uespertinos orientis incolæ non sentiunt, nec matutinos ad occasum habitantes, obstante globo terrarum. Neque enim nox aut dies, quamuis eadem, toto orbe simul est, oppositu globi noctem, aut ambitu diem afferente. Tempore enim Alexandri Magni luna defecit in Arabia hora noctis secunda, eademque in Sicilia exoriens. Et solis defectum, qui fuit Ipsanio et Fonteio Cons., pridie Kal. Muii, Campania, hora diei inter septimam et octauam, Armenia inter decimam et undecimam sensit.*

^a Cf. *Factum est uespere et factum est mane dies primus*; Genesis i, 5.

unto evening again.^b "The lunar days begin in the evening and end in the evening," wrote Q. Julius Hilarianus, a Christian computist of the last decade of the fourth century.^c In the strictest sense of the word, *uesperum*, which we render "the evening," does not signify the moment of sunset, but the moment of the appearance of Vesper, the evening star.^d This word forms an adjective *uespertinus*, "of eventide," and in ecclesiastical Latin a secondary adjective was formed from that, namely, *uespertinalis*, "connected with things done, or events occurring, in the evening." For instance, the monastic rule of St. David of Menevia was founded on Egyptian rules of conventual life, and David required his monks after the evening office, the *missa uespertinalis*,^e to remain upon their knees in prayer until the stars, beheld in the sky, closed the appointed day:—*quoad usque sidera celo uisa fnitum clauderent diem*.^f By "finitus dies" we are to understand the day divinely appointed, and referred to by Moses. To *Vesperum*, which extends from the going down of the sun to the appearance of Vesper, immediately succeeds *Crepusculum*,^g "the evening twilight," which yields place, in its turn, to the night-season. In Jewish computation the moment of sunset is enclosed in the

^b . . . *a uespera usque ad uesperam celebrabitis Sabbata uestra*; Leviticus xxiii, 32.

^c *Dies enim lunares uespere incipiunt et in uespere finiuntur*; Quintus Julius Hilarianus's *Expositum de die Paschae et Mense*, apud Migne, *Patrologiae Cursus*, tom. xiii, col. 1109.

^d Cf. Bede, who says, *De Temporum Ratione*, cap. vii, *De Nocte*, col. 325, *Vesperum apparente stella eiusdem nominis de qua poeta 'Ante diem clauso componet Vesper Olympo.'* Cf. "For when three stars appeared in the sky . . . the child's father made the *Habdalah*, or ceremony of division between week-day and Sabbath, thanking God Who divideth holiday from working day and light from darkness." "A Child of the Ghetto," in *Dreamers of the Ghetto*, by Israel Zangwill, 1906, p. 6.

^e Cf. the description given by Adamnan of St. Columba's last hours: *Ad uespertinalem dominicae noctis missam ingreditur [S. Columba] ecclesiam: qua continuo consummata ad hospitium reuertens in lectulo residet pernox: tum proinde media nocte pulsata personante clocca festinus surgens ad ecclesiam pergit. Sancti Columbae Vita*, scr. Adamnan, ed. J. T. Fowler, D.D., 1894, pp. 157 to 159.

^f The monastic rule of David is referred to in Ricemarch's *Life*, ed. Rees, *Lives of the Cambro-British Saints*, 1853, vide pp. 127, 128.

^g With Bede, *Vesperum* succeeds *Crepusculum*, vide the *De Temporibus Liber*, ed. Migne, u.s., col. 280.

'double-evening.'^a The day kept by the Jews, and the Mohammedans, was also observed by the Athenians, who called it *νυχθήμερον* (*nuchthēmeron*). This word, which is very useful to computists, is made up of the root *νυκτ-* (*nukt*), which is cognate with the English word "night," and *ἡμέρα* (*hēméra*), "the day : the light of day."

§ iii. *The Characteristics of the Lunar Calendar Day.*

The Lunar Day has no computistical parts, or subdivisions, and any portions of the day or night may be connoted by the number of the Lunar Day that envelopes them. This number proceeds in arithmetical order from i to xxviii, or xxx, as the length of the particular lunation may require. In English we say the 29th moon, or the 30th moon, and we mean thereby the lunar calendar-day at the end of which the moon of the Tables is 29 or 30 days old. The corresponding phrases in Latin are *luna uigesima nona*, or *luna tricesima*.

As the Lunar Day commences on one civil day, and ends on the next, it includes portions of two civil days.^a This is a fruitful source of confusion in dates ; cf. *infra*, § ui.

§ iiii. *The Proper Names of some Lunar Calendar Days.*

Instead of the phrase *dies lunaris* the word *dies* is sometimes found alone. This is commented upon by St. Ambrose (†397), who remarks in one of his Paschal letters,^a that the word *dies* is used instead of *luna*

^a See *The Antiquities of Israel*, by Heinrich Ewald, translated by Henry Shaen Solly, 1876, p. 340.

^a Cf. Bede, *Opera*, ed. Giles, vi, 257 ; *quomodo lunae dies eadem diuersas septimanae deuoluitur in ferias*. Also Ceolfrid's Letter to King Naitan, Bede, *H.E.*, V, xxi, ed. Plummer, p. 337 : *dies septimanae non aequali cum luna tramite procurrit*. And pseudo-Anatolius's Paschal Canon, cap. iiii, ed. Bucher, p. 444 ; *Omnis namque dies in lunae computatione non eodem numero quo mane initiatur ad uesperum finitur, quia dies quae mane in luna, id est, usque ad sextam et dimidium horae, xiii. annumeratur, eadem ad uesperum xiiii. inuenitur*.

^a In the Epistle *De Festo Paschali*, apud Bucher, *De Doctrina Temporum*, 1634, p. 478, par. 8, l. 18.

in the divine command given in Exodus xii, 5: *Et facies Pascha Domino Deo tuo quartodecimo die mensis primi.*^b

There are three lunar days to which specific names have been given by computists. These are—*luna prima*, *luna quartadecima*, and *luna tricesima*. (1) *Luna i^a* is called *Neomenia*, i.e., “New-Moon-tide.” This Greek word makes an early appearance in Latin Christian computation in the *De Idololatria* and *Adversus Marcionem* of Tertullian (†217).^c

(2) *Luna xiiii^a* is also called *Plenilunium*, i.e., “Full-Moon-tide.” This word was used by Pliny and Columella,^d among others. Whether the pagan Romans counted *luna xiiii* as the *Plenilunium*, is not clear; but it is certain that both Jewish and Christian computists expected to find that lunar calendar day concurring with the Full Moon of the heavens.^e In tabular lunar computation the phrase *luna i^a* does not indicate the day of the conjunction of the sun and moon; but the day on which the new moon of the heavens becomes visible, immediately after sunset, as a thin streak of light to the left of the position vacated by the sun. In fine climates, when other circumstances are favourable, it is possible to see the moon-sickle, as the Germans call it, some eighteen hours after conjunction.^f Consequently, by the end of the 14th moon, if the tabular lunation approximates to the visible phase, the moon of the heavens is at least 14 days and 18 hours old. It was very seldom, however, that the plenilunium of the tables concurred with the visible phase.

(3) The 30th moon, *luna xxx^a*, was called *Vetus et Nova*, i.e.,

^b This is the first month of the Hebrew year; cf. Bede, *De Natura Temporum*, cap. xi, ed. Migne, tome xc., col. 341, *De Mensibus*—*Primum mensem nouorum, qui Paschae ceremoniis sacratus est, Nisan appellant, qui propter multiuagum lunae discursum, nunc in Martium mensem, nunc incidit in Aprilem, nunc aliquot dies Maii mensis occupat. Sed rectius Aprili deputatur, quia semper in ipso uel incipit uel desinit, uel totus includitur, ea duntaxat regula, cuius et supra meminimus, obseruata, ut quae xv. post aequinoctium luna exstiterit, primum sequentis anni mensem faciat; quae uero, antea, nouissimum praecedentis, sicque per ordinem.*

^c Migne, u.s., tome i. coll. 269, 182.

^d *Naturalis Historia*, IX, xv; *De Re Rustica*, 11, 2, 85.

^e Cf. Bede's chapter xliii, u.s., col. 478, *Quare luna aliquoties maior quam computatur appareat.*

^f Compare the Rev. Lewis Hensley's article: EASTER, *Dictionary of Christian Antiquities*, p. 586.

“Old and New.” The reason being that, as the value of the true lunar period is about 29 days and 12 hours, the thirtieth day of that period must see the “extinction” of the old moon of the tables and the “lighting up” of the new one.⁹

§ v. *The Treatment of the Julian Intercalation in Lunar Computation.*

The *bissexthus*, or intercalated day of the Julian calendar, is ignored in lunar computation, and the *biduum*, or two-days' period, which comprises the *VI. Kal. Mart.*, and the *Bis-VI. Kal. Mart.*, has consequently only one moon allotted to it.* The matter was arranged in this way so that the course of the lunations, and the dates of the Paschal new moons in the Julian calendar, should not be perturbed by the intercalation of one day from time to time in the latter. This has been the invariable rule in both ancient and modern computation since the time of Theophilus of Alexandria, at least; cf. Chap. iiiii, §§ vii, viii.

§ vi. *The Dating of the Lunar Calendar Day in terms of the Julian Calendar.*

Every lunar day envelopes portions of two civil days, except the one that connotes the *biduum* just now referred to. In that case portions of three civil days are included in the nominal lunar day. The regular method of dating the lunar day is by its morning; that is to say, the whole of the lunar day bears the Julian calendar date of the day it ends upon. This method is the one more generally adopted. But, sometimes the lunar calendar-date and the Julian one on comparison being made are found to disagree. Analysis of such

⁹ The “lighting up,” *incensio*, of the new moon is a computistical way of referring to her first appearance. Thus Bede, in the *De Temporibus Liber*, cap. xii, u.s., col. 285, explains that ... *incensiones earum* [sc. *lunarum uel lunationum*] *medio diei et medio noctis semper alternent; non in hoc tamen ueritatem naturae, sed calculandi facilitatem uel compendium inquirunt.* For “extinguitur” cf. Bridfert of Ramsey's *Glossae*, ed. Migne, tome xc., coll. 486, 487.

* *Les calendriers, tant l'ancien que le nouveau, sont arrangés de manière qu'on n'y fait aucune attention aux années bissextiles et qu'on se contente d'augmenter les épactes du nombre 11 comme dans les années communes; the Dissertation sur les Dates, in the Art de Vérifier les Dates, i, 89.*

computistical positions will frequently show that the event recorded and dated was vespertinal, that is to say, it happened in the forenoon,^a after the date of the lunar day had been changed.^b

Conversely, every civil day, the two days comprised in the *biduum* excepted, is connoted by two dates drawn from the lunar calendar. The younger of the two marks the interval between midnight and sunset, and the older marks the period between sunset and midnight again. This complex position is exemplified by Epiphanius (†403)^c where, speaking of the Thursday before the Passion, he says—*Quinta feria luna xiii diurnâ, nocturnâ uero xiiii, xiv. Kal. Aprilis.*

¶ I. The Grouping of the Lunar Calendar Days.

§ *uui.* The Lunar Calendar Month.

When the word *luna* is accompanied by a number that gives, as we have seen already, the age of the moon of the Tables upon a certain day. The word *lunatio* indicates the group of lunar days comprised in the period that elapses from new to new again. The duration of a lunation, that is to say, the length of time taken by the moon in performing one revolution around the earth, was discovered at a very early period to be 29 days and about 12 hours. Later computists who undertook to furnish an equation of the lunations in numbers of Julian years and in terms of the Julian calendar, doubled this period in order to avoid dealing with the fractional part of a day, and assumed that the doubled lunation would tally with the period of time required by the moon in order to make two revolutions from new to new again. The twin periods aggregate 59 days, and this number of nominal days is distributed between tabular lunar months of 29 days and 30 days.

^a This is a Scottish word, and its adoption and employment would be advantageous to the computist.

^b Some dataries gave to the vespertinal portion of the ecclesiastical day the calendar date of the *feria*, or civil day, that enveloped that portion; *vide* "The Old-English Dating of Vespertinal Events," *Athenæum*, No. 3870, Dec. 28, 1901, and *cf. infra*, Chap. iii, § iii., and Chap. v, § ii.

^c See Bucher's translation of Epiphanius's remarks, *Hæresi LI.*, in his tractate *De Paschali Iudæorum Cyclo, u.s.*, p. 401, par. 4. Epiphanius was bishop of Constantia (Salamis) in about A.D. 368.

The lunation or lunar month of 30 days, is called *plenus*, "full"; that of 29 days, which is about 12 hours short of the actual length of a lunation, is called *cavus*, "wanting."

§ *uiii. The Notation of the Lunar Calendar Months.*

It was the opinion of the Venerable Bede that the lunar calendar month ought to take its name from the Julian calendar month in which its *plenilunium* is dated.^a But computists decided, at an early period, that the lunations were to be attributed nominally to the Julian calendar month in which they finish or are "extinguished," except in the case of the intercalated month. There is an old computistical rhyme which runs thus :—

In quo completur mensi lunatio detur—

i.e., let the lunation be given to the month in which it finishes.^b

§ *ix. The Lunar Calendar Year.*

The term *Annus Lunaris* or "Lunar Year," is arbitrary and conventional. It is employed to denote the period of time absorbed by a certain number of lunations. There are two kinds of lunar years—the common, and the intercalary or embolismic. The common lunar year has twelve lunations. Of these six are full, and six are deficient. They are arranged alternately. The aggregate number of nominal days in the lunations in common lunar years is invariably 354. At fixed intervals, and for reasons that will be explained presently, *vide* § *xvi*, another month is inserted. This thirteenth month is called the embolism and the lunar year in which it is intercalated is known as embolismic, or as *annus embolismalis*. The ordinary embolismic year, therefore, comprises 384 days.

^a *Vide supra*, § *iiii*, note *b*.

^b *Vide Dissertation sur les Dates, &c., u.s.*, p. 68. *Cf. Omnis lunatio illius mensis esse dicitur in quo finitur, excepto embolismali anno, et etiam embolismalis lunatio nullius esse dicitur*: from a *Computus* of 1147, quoted by Th Sichel, *Die Lunarbuchstaben in den Kalendarien des Mittelalters*, cited by Rühl, *Chronologie des Mittelalters*, S. 134.

¶ 2. The Grouping of the Lunar Calendar Years.

§ x. *The two Lunar Cycles of Nineteen Years each.*

When the early Christian computists had fixed upon the doubled lunation of 59 days as the measure of lunar movement they sought to find the values of x in the following equation :—

x lunar periods of 58 days = x Julian periods of $365\frac{1}{4}$ days.

Their ultimate object was the discovery of a method whereby prospective Easter Days could be dated correctly and, at the same time, uniformly. In the second and third centuries of the Christian Era the date was calculated by means of a cycle of eight years called the Octaeteris.^a It had been found out by inspection, no doubt, that eight lunar years would give the equation required if the lunations were arranged in a certain way. That way consisted in making three of these lunar years embolismic, when the equation stood thus :—

$$(8 \times 365\frac{1}{4}) = (5 \times 354) + (3 \times 384), \text{ i.e., } 2922 = 1770 + 1152.$$

This arrangement of the lunations is obviously empirical. After a few revolutions of the Octaeteris it was perceived that the moon of the heavens had broken away from the faulty Tables contrived in the hope of mapping out its course through the Julian calendar, and it was acknowledged that a group of eight lunar years does not keep step with every group of eight Julian years with the commencement of which it may happen to coincide. Various expedients were resorted to, one of which consisted in doubling the Octaeteris and making a long cycle of 112 years, i.e., of seven periods of 16 years each.^b But all these expedients were found wanting and were rejected in turn. Eventually, the Christians of the East were constrained to adopt the true lunar period of 19 years which had been discovered in about 432 B.C. by Meton of Athens, and which was styled the Metonic Cycle.

^a Compare the article cited above in § iii, note f, p. 587.

^b The cycle of *CXII. annorum per septem sedecennitates* of Hippolytus, vide Bucher, *u.s.*, p. 289, *sqq.*; and Dr. B. MacCarthy *Annals of Ulster*, 1901, vol. iv, Appendix A, p. clxiii.

This important cycle was introduced into the Western Church by St. Jerome, who rendered the One Hundred Years' List of Easter Days into Latin.^c This list had been compiled in A.D. 379, and written out in Greek by Theophilus, the Patriarch of Alexandria, and uncle of the great Cyril.^d It consisted of five periods of 19 years each, and of five other years taken out of a sixth period. These periods were regulated by the decemnovennial equation of solar and lunar movement referred to above. The application of the decemnovennial principle to Paschal computation was first made in about A.D. 270.^e Since the year 380 the Alexandrian method of Theophilus and Cyril has been predominant, no better practical equation of the theory of the moon's revolutions, in terms of the Julian calendar, having been devised. The Alexandrian method was slightly modified by Dionysius Exiguus,^f in A.D. 526, and his system was introduced into Kent and Northumbria, together with Christianity, in A.D. 597 and A.D. 626 respectively.

The *Cyclus Lunaris*, like the *Cyclus Decemnovennalis*, is a group of nineteen years. Both cycles are complete in themselves and each is independent of the other. They differ in incidence, the first year of the *Cyclus Lunaris* commencing with the month of January in the Julian year that has Golden Number XVII. A rule respecting mutation of the numbers of the years of these cycles bids us "change the Lunar Cycle on January 1 and the Decemnovennial Cycle on March 1."^g The rule about the cycle named last was not applied universally, and

^c The 100 years' list of Easter Days has not survived. Its method is known from numerous references to its dates in fifth-century writers.

^d Theophilus was bishop of Alexandria from 385 to 412. He was succeeded by Cyril, who died in 444.

^e By Anatolius, bishop of Laodicea, who was born at Alexandria in about 230, and died in 282.

^f The two Epistles of Dionysius Exiguus are printed by Migne, *Patrologiae Cursus*, tome lxvii, coll. 19 sqq.

^g Sc.—*muta cyclum lunarem Kalendis Januarii, cyclum decemnouennalem Kalendis Martii*; a rule given in an eleventh-century MS. of St. Sergius's at Angers, *Dissertation sur les Dates*, u.s., xiv., p. 64. Compare, however, the note set down against *viii Id. Mart.* (March 8) in four of the calendars reproduced by Hampson, *Ancient Kalendars*, vol. i, pp. 401, 424, 437, 451: *hic mutantur anni lunares et concurr[entes]*; i.e., "at this date the lunar years and the concurrents are changed."

sometimes the number of the cyclic year was changed on September 1, antecedent, and at others on January 1, in the same Julian year of grace. Dionysius did not afford a *versus*, or column, to the numbers of the years in the Cycle of XIX, though he did so to the numbers of the years of the Lunar Cycle. Nevertheless he gave a column to the Epacts and set them down, year by year, against the proper year of our Lord.

The discovery of the number of either cyclic year depends upon the application of one of two simple rules:—

I. To discover the year of the Lunar Cycle: From the year of our Lord deduct 2 and divide by 19. The remainder is the year of the Lunar Cycle. If there is no remainder the year is 19.

II. To discover the year of the Decemnovennial Cycle: Add 1 to the year of our Lord and divide by 19. The remainder is the year of the Decemnovennial Cycle. If there is no remainder the year is 19.

§ xi. *The Ogdoad and the Hendecad.*

The first eight years of the Decemnovennial Cycle form the Ogdoad, or group of eight: Greek *ογδοάδος* (*ogdoados*), the genitive case of *ογδοάς*. The older notion of the Octaeteris would appear to be retained in the Ogdoad. The remaining eleven years form the Hendecad: Greek, *ἐνδεκάδος* (*hendekados*), the genitive case of *ἐνδεκάς*. In some copies of the Decemnovennial Cycle these subdivisions are noted in the margin.^a Dionysius Exiguus remarks, in his second Paschal Epistle,^b *decemnovenialis cyclus per Ogdoadem et Endecadem semper in se reuoluitur*, i.e., “the Decemnovennial Cycle through the Ogdoad and the Endecad is perpetually revolving on itself.” Bede, in the ‘*De Temporum Ratione*,’^c cap. xlii, describes a certain year of the Decemnovennial Cycle as one *qui est ultimus Ogdoadis*, i.e., “the last of the Ogdoad.” By this he meant that the year had Golden

^a *E.g.*, in the Paschal Table reproduced in the *Monumenta Historica Britannica*, i, p. 105.

^b In Bucher's *De Doctrinâ Temporum*, 1634, p. 490.

^c In Migne's *Patrologiæ Cursus*, tome xc, col. 475, A.

Number VIII. Similarly, Nennius speaks of the year in which he was writing the "Historia Brittonum,"^d namely, the year 837, as *duo anni in Ogdoade*, i.e., "the second year of the Ogdoad." This implies that the year had Golden Number II., which is correct. Compare ¶ 2, in this chapter,

There is a ninth-century quatrain which runs thus :

*Huius Cycli pars uocatur Ogdoas anterior,
Ac deinde appellatur Endecas ulterior.
Ogdoadi deputantur octo anni priores,
Endecadis et undena comprobatur series.^e*

§ xii. The Golden Numbers.

The years of the Decemnovennial Cycle are indicated in the Julian calendar by means of majuscule Roman letters which number each year from I to XIX. These numbers are set down in the lunar calendar against the Julian calendar dates on which the new moons of the decemnovennial year indicated by the respective number happen to fall. This number is called *Numerus Aureus*, "the Golden Number." It is also known as *Primatio*,^a "the Prime,"^b because it is the first thing that has to be discovered in Paschal lunar computation; *vide* Rule II, *supra*, § x. With the help of the Golden Number we can find the age of the moon of the tables on any day in the Julian year.

To find the Golden Number when the A.D. is known : Divide the A.D. *plus* 1 by 19. The remainder is the Golden Number. If there is no remainder the G.N. is XIX.

The discovery of the G.N. when only the Epact is known is complicated, and must be performed by inspection. The method is as follows : add severally 1 and 11 to the Epact, if it is one of the digits,

^d *Vide* Mommsen's edition, *Chronica Minora*, iii, p. 159.

^e See the anonymous *Liber de computo siue de Kalendario*, written circa 810, and printed in *Anecdota . . . ex Ambrosianae Bibliothecae Codicibus*, ed. L. A. Muratorius, 1713, iii, p. 209.

^a *E.g.*—in Thomas of Elmham's *Historia Monasterii Sci. Augustini Cantuariensis*, ed. C. Hardwick, "R.B.SS.," No. 8, 1858, p. 2.

^b *E.g.*—in *A Table to find Easter Day*, in The Book of Common Prayer.

or to the second figure of the Epact, if it is higher than 9, and select that resultant number which yields the equivalent of the Epact on application of the rule devised for extracting the same from the Golden Number ; *vide* the next section. Thus—What is the Golden Number that accompanies Epact iii ? 3 *plus* 1, and 3 *plus* 11 = iv and xiv respectively. Of these iv. has Epact iii ; therefore IV is the Golden Number sought. Again—what Golden Number accompanies the Epact xxvi ? 6 *plus* 1, and 6 *plus* 11 = vii and xvii respectively. Of these, XVII accompanies the Epact named.

§ xiii. *The Epacts.*

The Epact of the lunar year of the Decemnovennial Cycle is the most important of all lunar computistical data. It is the pivot on which turns the adjustment of the lunar calendar to the Julian one, and the lunar theory of the tables is dependent upon it. Its ratio is as follows. A common lunar year, as we have already observed, has twelve lunations and includes 354 days. Consequently, when such a lunar year commences on January 1, in a common Julian year, it ends eleven days earlier than the Julian year that it is concurrent with. That is, it ends on December 20. The first lunation of the next year of XIX begins, therefore, on December 21. It is twelve days old on January 1, and the lunar year introduced by it ends on the following December 9 ; that is, it ends twenty-two days earlier than the second Julian year does. The next common lunar year of the particular group we are considering commences on December 10 ; its first lunation is twenty-three days old on January 1 ; and if it were not eked out by extraneous aid (*ἐπακτός*—*epaktós*) it would end on November 28, and the new lunar year would begin on November 29. The beginning of each successive lunar year would, consequently, fall continuously and increasingly behind the Julian year, until all relationship between them had disappeared, and computation would have become intricate and difficult. But, at this stage, the theory of the Epacts (*ἐπακται*—*epaktai*) intervenes, and the balance of twenty-two nominal civil days, unabsorbed into the two

preceding lunar years, is called up to the assistance (*ἐπάγω*—*epágō*, "I call in aid") of the eleven civil days unabsorbed into the third lunar year. This particular year, therefore, is augmented by the addition of one lunar month of thirty days. In consequence of this intercalation, the year we are considering has 384 days. It ends on December 28, and the movement of the lunar cycle at this point has left only three civil days unabsorbed. This balance of three nominal days dominates the computation of the next lunar year, and is carried forward and held in suspense, until it can be absorbed into the next lunar intercalation.

As the Decemnovennial Cycle requires a period of nineteen Julian years in which to finish its course, it is obvious that there must be $(19 \times 11 =)$ 209 days of Epact, and that this aggregate is most readily distributed into six intercalary months of 30 days each, and one of only 29 days. When all the Epacts have been allotted, and absorbed, their cycle is naturally complete, and the phenomena must recommence with each new Decemnovennial Cycle, and proceed in the same relative order. This completeness is recognised in the phrase *Nulla Epacta*, i.e., "no Epact," which was imposed upon the first year of the Decemnovennial Cycle by ancient computists, and set down in the Paschal Tables against years that have Golden Number I. Modern computists ignore the fitness of this phrase, and delude themselves by speculation about an alleged Epact of 29 days, to which they add unity, on account, so they say, of the lunar leap.

The Golden Numbers and the Epacts cohering with them are as follows :

G.N.:	I.	II.	III.*	IV.	V.*	VI.	VII.	VIII.*	} The Ogdoad.
Epact :	Nulla	xi.	xxii.	iii.	xiii.	xxv.	vi.	xvii.	

G.N.:	IX.	X.	XI.*	XII.	XIII.	XIV.*	XV.	XVI.	XVII.*	XVIII.	XIX.*	} The Hend-ecad.
Epact :	xxviii.	ix.	xx.	i.	xii.	xxiii.	iiii.	xv.	xxvi.	vii.	xviii.	

* These years are intercalary or embolismic.

The date of the annual mutation of the Epacts, in medieval times, was not uniform, and sometimes the number of the Epact was changed simultaneously with the annual change made in the Julian year-number. When the year began on January 1, some computists changed the Epacts on that day; when it began on September 1, the number was sometimes changed then. The latter date of change was also observed by some who severally commenced the Julian year on either January 1 or on Lady Day. There is an ancient hexameter which runs thus :

Mars concurrentes September mutat epactas.^a

We have already seen^b that there was another rule which said *muta Cyclum Decemnovennalem in Kalendis Martii*, and when the Cycle of XIX was changed the G.N. and also the Epacts were changed with it.

To find the Epact : Divide the year of our Lord by 19. Multiply the remainder by 11, and divide by 30. The remainder is the Epact. If there is no remainder there is *Nulla Epacta*.

§ xiiii. *The Sedes Epactarum.^a*

In many ancient calendars, against the date *xi. Kal. Aprilis* (March 22), may be read the words "Sedes Epactarum." This means that the equivalent of the Epact is always to be found in the lunar value of that Julian calendar day. The determination of the appropriateness of this position is governed by three considerations. First, March 22 is the date of the earliest Easter Day : consequently, the knowledge of the moon's age on that day is valuable as a guide to the computist. Second, in the year of *Nulla Epacta*, which has Golden Number I, the Kalends of February fall with *luna x*. February 1, *luna x*, minus *x* = January 22, *lxxxix*, which calendar-day and lunar date completed the Cycle of XIX. The following day, January 23, *l.i.*,

^a Cf. Hampson, *Ancient Calendars*, ii., 286.

^b *Vide supra*, § x, note g.

^a Cf. Bede, *De Temporum Ratione*, chap. xlviii : *Quae in circulo decemnovennali adnotatae sunt epactae lunam quota sit in xi. kal. Apriles ubi paschalis est festi principium signant* ; also—*Omni anno quota luna in undecimo calendarum Aprilis euenerit tota eodem anno epacta erit. Opera eiusdem*, tome i, II, p. 115. Compare also the *Dissertation sur les Dates*, u.s., i, p. 93.

commences a new Cycle ; and, as the lunation current in March–April reflects the one current in January–February, the 23rd of March, also, falls with *luna i*. The preceding day, therefore, in all other lunar years, reflects the position and lunar value of the last day of a period which has always 365 nominal days allotted to it. Consequently, the lunar age of the last day of such a twelvemonth always equates with the Epact of the particular lunar year. For instance : In the year of *Nulla Epacta*, which has Golden Number I, the Kalends of April fall with moon 10. April 1, *luna x*, minus $x = \text{March } 22, \text{ } lxxx$, or, as the particular epactal name given to the year implies, nothing over. In the next year, which has Golden Number II, the Kalends of April fall with *luna xxi*. April 1, *lxxi*, minus $x = \text{March } 22, \text{ } lxi$. In the following year, which has Golden Number III, the Kalends of April fall with *luna ii*. April 1, *l.ii*, minus $x = \text{March } 22, \text{ } lxxii$. Now—*nulla*, xi, and xxii, are the epactal figures connoting the Golden Numbers I, II, III, and if these calculations be pursued it will be perceived that April 1 is always ten days older than the sum of the Epacts. Third—the age of the moon on March 22 is always equal to the remainder left after dividing the sum of the Epacts by 30. *E.g.*—at the end of four years there are 11×4 days of Epact, *i.e.*, 44 ; and $44 \div 30$ leaves 14 remainder. This is the Epact of the year that has Golden Number V, and also, it is the moon's age on the Julian calendar-day connoted as “Primum Pascha” and “Sedes Epactarum.”

§ xv. *The Termini Paschales.*

The Paschal Term is the 14th day of the Paschal Moon of the Tables, and immediately after its occurrence we begin to look for the Lord's Day on which the Easter celebration is to take place. The dates of the Paschal Terms are as follows :

G.N.	Epact.	Paschal Term.	Ferial Letter of the Calendar Date.
I.	<i>Nulla</i>	April 5	<i>d</i>
II.	<i>xi.</i>	March 25	<i>g</i>
III.	<i>xxii.</i>	April 13	<i>e</i>
IV.	<i>iii.</i>	April 2	<i>a</i>
V.	<i>xiii.</i>	March 22	<i>d</i>
VI.	<i>xxv.</i>	April 10	<i>b</i>
VII.	<i>vi.</i>	March 30	<i>e</i>
VIII.	<i>xvii.</i>	April 18	<i>c</i>
IX.	<i>xxviii.</i>	April 7	<i>f</i>
X.	<i>ix.</i>	March 27	<i>b</i>
XI.	<i>xx.</i>	April 15	<i>g</i>
XII.	<i>i.</i>	April 4	<i>c</i>
XIII.	<i>xii.</i>	March 24	<i>f</i>
XIV.	<i>xxiii.</i>	April 12	<i>d</i>
XV.	<i>iiii.</i>	April 1	<i>g</i>
XVI.	<i>xv.</i>	March 21	<i>c</i>
XVII.	<i>xxvi.</i>	April 9	<i>a</i>
XVIII.	<i>vii.</i>	March 29	<i>d</i>
XIX.	<i>xviii.</i>	April 17	<i>b</i>

The earliest possible Easter Day is March 22 ; therefore, as Easter may fall on the 15th day of the Paschal moon, but not earlier, the earliest possible Paschal Term is March 21, which is linked with G.N. XVI. Similarly, as Easter Day may fall on the 21st day of the Paschal moon, and as the latest Paschal Term falls on April 18, which is grouped with G.N. VIII, the latest possible Easter Day is April 25.

In ancient computistical works the Paschal Term is found linked with a numeral which is that of the *feria*, or weekday, on which it fell in the corresponding year of the first nineteen of the 28 years of the Solar Cycle, or Cycle of the Sunday Letters ; *cf.* Chapter iii, § *xiii*. For instance : the frontispiece to this article is drawn from the eleventh-century Anglo-Saxon computus-book preserved in the Cotton Codex *Caligula A XV*. The subject of the first icon, or miniature, is the handing over to Pachomius, the alleged founder of Egyptian monasticism,^a by an angel, of the list of the nineteen Paschal Terms.

^a Pachomius was converted to Christianity about A.D. 326, and died about twenty or thirty years later.

The second miniature depicts the angel receiving his instructions from the Lord Jesus Christ.^b The use to which the tables drawn beneath these miniatures were put was as follows: 1. In col. 1 we find the *Numeri Aurei*, or Golden Numbers; in cols. 2 and 3 we get the Julian calendar-date of the second day of the second lunation of the lunar year connoted by the particular Golden Number. This day was chosen because it occurs in common years on the same day of the week as the Paschal Term.^c In leap-years it falls one day earlier. In col. 4 are the *feriae*, or week days, on which that particular day falls, year by year, beginning with year 1 of the Cycle of Sunday Letters, and continuing for nineteen years. 2. In the second table, cols. 1 and 2 give the Julian calendar-date of the Paschal Terms in figures; col. 3 indicates, by the initial letter *c*, or *e*, whether the lunar year is common, or embolismic; cols. 4 and 5 give the Julian calendar-date in words, and the lines conclude with the same ferial numbers as those written in the last column of the first table. Each ferial number is either 11 before or 12 behind its predecessor. In this movement it reflects the procession of the Paschal Terms, each of which is 11 days earlier or 12 days later than its forerunner. Thus—Golden Number I has its Paschal Term on *feria u*. G.N. II has it on *u. minus 11*, i.e., *u. minus (11 minus 7) = i*. The Paschal Term of III moves 12 days onward in the calendar; hence we get *i. plus 12 = 13*; *13 minus 7 = feria vi*, and so on.

In order to use these data in the discovery of the day of the week

^b Cf. Cummian's Paschal Epistle, *apud* Migne, *Patrologiae Cursus*, tome lxxxvii, col. 975: *Nono, Pacomium monachum Aegypti coenobiorum fundatorem, cui ab angelo ratio Paschae dictata est*. Cummian was writing c. A.D. 631, and the reference to Pachomius appears in a list of teachers of Paschal computation.

^c Compare the rule—*De Quadragesima: Post vii. Id. Februar. ubi lunam .ii. inueneris, ibi fac terminum quadragesime*; i.e., "make the quadragesimal term where you find the moon two days old next after February 7"; cited by Hampson, *Glossary, Ancient Kalendars*, p. 335. For instance: A.D. 1000 has G.N. XIII.; XIII. occurs at February 9, therefore the moon was two days old on February 10. In A.D. 1000, which was a leap year, the Sunday Letters were GF, and February 10 has letter f; therefore *luna ii.* fell on Saturday, and the following Wednesday, namely, February 14, was the first day of Lent. Easter Day in A.D. 1000 fell on March 31, moon 21; therefore *luna xiiii.*, the Paschal Term, fell on Sunday.

on which the Paschal Term fell in any year, we add the ferial number given in the tables to the concurrent day ; *vide* Chapter iii, § xi. *E.g.*, A.D. 532, is year 9 of the Cycle of Sunday Letters, its concurrent day is *feria iii*, and its Golden Number is I, which is connoted in the table by *feria u*. Consequently, *iii plus u = (ix minus vii, i.e.) feria ii*, so that the Paschal Term of A.D. 532 fell on Monday (*secunda feria*), and Easter Day followed on Sunday, April 11.

§ xvi. The Embolisms.

In certain lunar years the Epacts are gathered together, as it was explained above in ¶ 2, and formed into a thirteenth month. This month is called *mensis embolismalis* ; the years to which it is allotted are known as *anni embolismales*, or embolismic years ; and the intercalation generally, is spoken of as the "embolism." The Greeks of Alexandria called this month *μην ἐμβόλιμος* (*mēn embólimos*), "the intercalary month" (from *ἐμβάλλω*—*embállō*, "I throw in.") The Golden Numbers of the years in which the embolism occurs in medieval times differ accordingly as the Epacts were changed in September or in January. When the change was made in September the embolismal Golden Numbers were III, VI, VIII, XI, XIV, XVII, XIX. When the change was made in January the embolismal Golden Numbers were II, V, VIII, XI, XIII, XVI, XIX.

The reason for this variation becomes apparent if we reflect that when the embolism falls in any one of the months September, October, November or December its year-number is 1 more in years that begin in September than it is in years that begin in January. Now the embolisms in the January years II, V, XIII, do fall in one of these four months ; consequently, when the commencement of the year is advanced regularly to September 1, these particular embolisms fall in the September years numbered III, VI and XIII.

The last year of the Decemnovennial Cycle has the Golden Number XIX, and the lunations comprised in it end on the dates given in the following table. It will be observed that in the case of the first two lunations the name by which it is to be designated is that

of the month in which it finishes, notwithstanding the fact that almost the whole lunation in these cases falls in the preceding month. The year that has G.N. XIX, is a lunar intercalary year, and the number of days in each of its lunations is given below, as well as the number of days in the lunations of a common lunar year.

The number of days in each lunation—			The lunations in the year XIX end:
in common lunar years is:		in the lunar intercalary year XIX is:	
29	February	29	February 2
30	March	30	March 4
	<i>Embolismalis</i>	30	April 3
29	April	29	May 2
30	May	30	June 1
29	June	29	June 30
30	July	30	July 30
29	August	29	August 28
30	September	30	September 27
29	October	29	October 26
30	November	30	November 25
29	December	29	December 24
30	January	29	January 22
354		383	

January 22 in XIX is the last day of the Decemnovennal Cycle.

The ratio of the embolisms is as follows :—

a. September Year.

G.N.		
III.	II + II + II = 30 + 3	} + 3 + 3 = 6, to col. 3.
VI.	II + II + II = 30 + 3	
VIII.	II + II + 6 = 30 - 2	} - 2 + 3 + 3 = 4, to col. 3.
XI.	II + II + II = 30 + 3	
XIV.	II + II + II = 30 + 3	
XVII.	II + II + 15 = 30 + 7	} - 7 + 7 = 0, <i>nulla epacta.</i>
XIX.	II + II = 29 - 7	

b. January Year.

G.N.			
II.	11 + 11	= 30 - 8	} - 8 + 9 = 1, to col. 3.
V.	11 + 11 + 11	= 30 + 3	
VIII.	11 + 11 + 11	= 30 + 3	
XI.	11 + 11 + 11	= 30 + 3	
XIII.	11 + 11 + 1	= 30 - 7	} - 7 + 7 = 0, <i>nulla epacta</i> .
XVI.	11 + 11 + 11	= 30 + 3	
XIX.	11 + 11 + 11	= 29 + 4	

The embolism of XIX is only 29 days in length as we have already proved by the foregoing table and the remarks in § *xiii*. Consequently that embolismic year has only 383 days.

The Calendar Dates of the Embolisms.*

G.N. with <i>caput anni</i> on—			Days.
September 1.	January 1.		
III.	II.	December 2 to December 31	30
VI.	V.	September 2 to October 1	30
VIII.	VIII.	March 6 to April 4	30
XI.	XI.	December 4 to January 3	30
XIV.	XIII.	November 2 to December 1	30
XVI.	XVI.	August 2 to August 31	30
XIX.	XIX.	March 5 to April 3	29

§ *xvii*. The “*Saltus Lunar*is.”

In § *xiii* I pointed out that the numerical notation of the Epact regularly increases by 11, year by year, until 209 days of epact are absorbed and the Cycle is completed. The Epact of the year that has G.N. XIX is *xviii*, and that is also the age of the moon of the tables on March 22, in that year. But in the next year, that of *Nulla Epacta* and G.N. I, instead of March 22 falling with *luna xviii plus 11*,

* Vide Bede, *De Temporum Ratione*, cap. xlv., col. 488.

sc. with *luna xxix*, it falls with *luna xxx*, i.e., xviii *plus* 12. This augmentation of the figure of the moon's age is called the *Saltus Lunae* and the *Saltus Lunaris*. It is effected by cutting off one day from the last lunation of the year that has G.N. XIX. This allows of the first lunation of the year that has G.N. I commencing one day earlier than it otherwise would do. The necessary consequence of this is that all the Julian calendar-dates of that year after February are 12 days older by lunar computation than the days bearing the same Julian calendar-dates in the preceding year.

Modern computistical writers assert that the *Saltus* is effected by adding a nominal day to the last lunation of the expiring decemnovennal period.^a This assertion is not thoughtful. If we defer the commencement of a lunation by one civil day it is obvious that its days will be only ten days older than the corresponding days in the preceding year, and no more. If we do not interfere with the date of its commencement it will be eleven days older on any given date, according to rule. But, if we advance its first day in the Julian calendar it follows that its thirteenth day, i.e., 1 *plus* 11 *plus* 1, will have the same Julian calendar date as the first day of the corresponding lunation in the preceding year after February. And this is actually

^a Vide Rühl, *Chronologie*, SS. 141, 123, 134. Prof. Rühl, at the first place cited, enters upon a lengthy astronomical explanation of the reasons why computists *add* one day to the customary 11; *am Schluss des Cyklus nicht 11, sondern 12 Tage (werden) addiert*; i.e., "at the end of the Cycle, not 11 but 12 days must be added." Even the Benedictines are wrong; cf. the oft-cited *Dissertation sur les Dates*, i, pp. 68, 90: *Il faut donc que les computistes [modernes] ajoutent 12 à 29 pour l'année qui suit celle qui est marquée de l'épacte 29*. It is noteworthy that Prof. Rühl correctly explains the ratio of the *Saltus Lunae* without connecting the two considerations. He says, S. 134: *Um daher eine vollständige Uebereinstimmung zwischen dem Mondjahr und dem julianischen Jahre zu erzielen musste man in jedem Mondzirkel einen Mondmonat um 1 Tag verkürzen. Diese Verkürzung nennt man Saltus Lunae*; i.e., "In order, therefore, to bring about complete-harmony between the lunar year and the Julian year it is necessary for one lunar month in that lunar cycle to be shortened by one day. This abridgment is called the *Saltus Lunae*." The last statement is not correct: it is the augmentation of the moon's age that results from this abridgment that we call the *Saltus*—not the abridgment itself.

For other erroneous explanations, with Rühl, S. 141, compare Hampson, ii, 111; and the *Art de Vérifier les Dates*, i, 68. For the error of ancient writers, sc., among others, Alcuin, Dionysius Exiguus, and Victorius, the curious may turn to the *De Cursu et Saltu Lunae* of the first named; *apud* Migne, *Patrol.*, tome ci., coll. 986, 987.

the case, as we may see by inspecting a lunar calendar. The second month of I of XIX commences on February 21; on March 5 it is 13 days old, and, on that date in the preceding year the lunation was new.

The *Saltus* was effected at July 30 by the computists of Alexandria, who began the lunation of August on that date instead of allotting 30 days to that of July. It was effected at November 25, by the Venerable Bede,^b instead of at January 22, at which date, it is said, mediæval computists effected it generally. These variations caused divergence in the calendar dates of the lunations, and quasi-lunar data must be used with discretion when they connote a twelvemonth which has the G.N. XIX.

§ xviii. *The Lunar Regulars.*

In order to discover the age of the moon of the tables on the first day of any Julian calendar month we require to know the lunar epact of the decemnovennal year, and the moon's age on the particular calends in the decemnovennal year that has G.N. I. The series of numbers in which this particular one is comprised is called that of the Lunar Regulars. The first year of XIX, for instance, begins on January 23, and it is 10 days old on February 1. The other numbers follow in due course, but two points in connection with them must be noted: the year I of XIX has its January lunation last of the twelve, consequently the age of the moon on January 1 in the year that has G.N. I is 20 days, and the lunation of January ends on January 11. We cannot use this number 20 as a lunar regular because, in practical computation, we assume that January commences the lunar year always; therefore we make that assumption in this case also, and

^b Bede, *De Temporum Ratione*, cap. xx.—*Si enim ipsum argumentum iuxta Ægyptios a Septembri mense, ubi principium est anni eorum, inchoaueris, necesse est ut luna Iulii mensis eo anno xxix. dies et numquam alius habeat, uno uidelicet ratione saltus amisso, et ob id luna Calendarum Augustarum tertia reddatur quæ iuxta argumenti regulam secunda computabatur. Si uero iuxta hoc quod supra docuimus, a Ianuario principium argumenti sumere mauis, eodem ordine luna in Calendis Decembris vii. incurrit.* Where Bede says *uno (die) ratione saltus amisso*, he makes it quite clear that he understood the reason of the apparent increase in lunar worth of the Julian calendar dates in year I. of IX., and also the method of effecting it.

assign to January the same lunar regular that we assign to March, namely 9, which equals 20 *minus* 11. The Lunar Regulars, then, are as follows :—

		January years :	September years :
January 9	May 11	September 16	5
February 10	June 12	October 16	5
March 9	July 13	November 18	7
April 10	August 14	December 18	7

These numbers have been arranged in such a way that the reader need have no difficulty in committing them to memory.

When the Golden Number and the Epact were changed on September 1, the Epact was increased by 11. Consequently, the Lunar Regulars of the Calends of the last group of four months must be reduced by that number, as in column 4. Those computists who effected the *Saltus* at July 30 were compelled to increase the Lunar Regular of August by 1, thus making it 15.

§ xix. *The Computation of the Date of Easter Day.*

Easter Day is the Sunday in the third week of that lunation the plenilunium of which falls on, or after, the ecclesiastical date of the vernal equinox, that is, on or after March 21, *xii Kal. April*. The third week of a lunation is current from moon 15 to moon 21.^a

In order to compute the date of Easter Day two data must be known or calculated: 1, the Julian calendar date of the Paschal Term; 2, the day of the week on which that calendar date falls. We find the date of the Paschal Term (*cf.* § xu, *supra*) by adding 1 to the A.D.

^a *Cf.* Bede's copy of Ceolwulf's Paschal Epistle, *H.E.*, V. xxi., p. 334: *Præcipit enim lex ut pascha primo mense anni et tertia eiusdem mensis septimana, id est, XV^a die usque ad XXI^m, fieri deberet; i.e., "the feast of the Passover ought to be kept in the first month, and in the third week of the same, that is, from the 15th day of the month unto the 21st."* The observance of the Christian Easter in the third week of the Paschal lunation is insisted on at p. 334, l. 5, up; p. 335, l. 14; p. 336, l. 1; p. 337, l. 15; p. 338, l. 7; and p. 340, l. 3, up.

and dividing by 19 to get the Golden Number. We multiply that number, less 1, by 11 and divide by 30 to get the epact (*cf.* § *xiii*, *supra*); and we compute the date of the Paschal Term by adding 10 to the epact (which gives us the age of the moon of the tables on April 1), and computing backward or forward to the nearest plenilunium after March 20. Thus, to find the date of Easter Day in A.D. 909 :

$$\frac{909 + 1}{19} = \text{G.N. XVII} : \frac{(\text{XVII.} - 1) \times 11}{30} = \text{xxvi. days of epact};$$

$$(\text{xxvi.} + 10) - 30 = \text{luna ui., Kal. April.}$$

$$\text{xiii. minus ui.} = 8; \text{ April 1, luna ui, plus 8} = \text{April 9, l. xiii.}$$

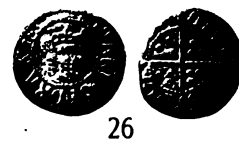
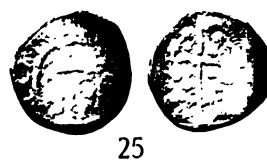
We must now discover the day of the week on which April 9 fell in A.D. 909 (*cf.* Chap. *iiii*, ¶ 2, § *xiii*, *infra*).

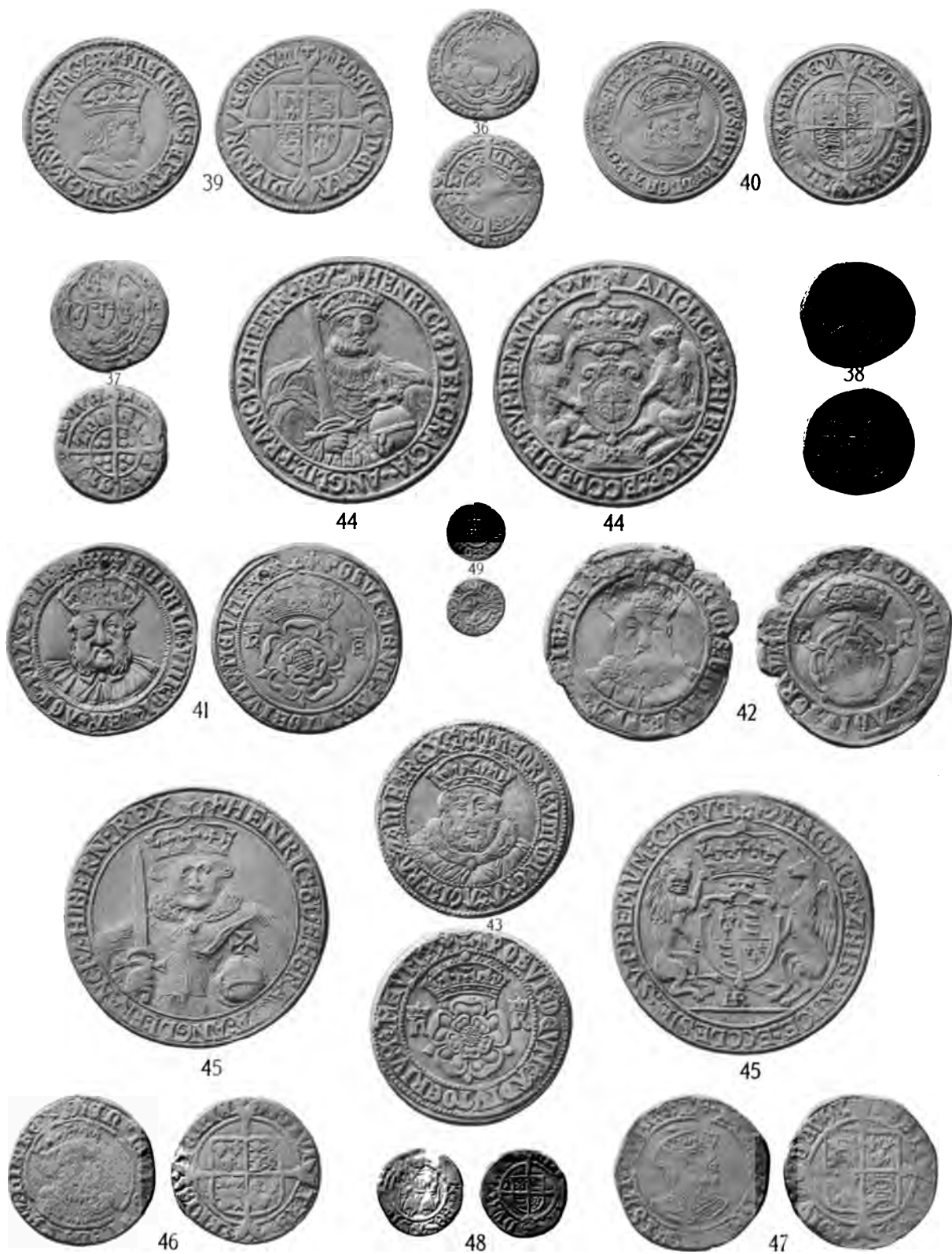
$$\frac{909 + 9}{28} = \text{year 22 of the Cycle of Sunday Letters.}$$

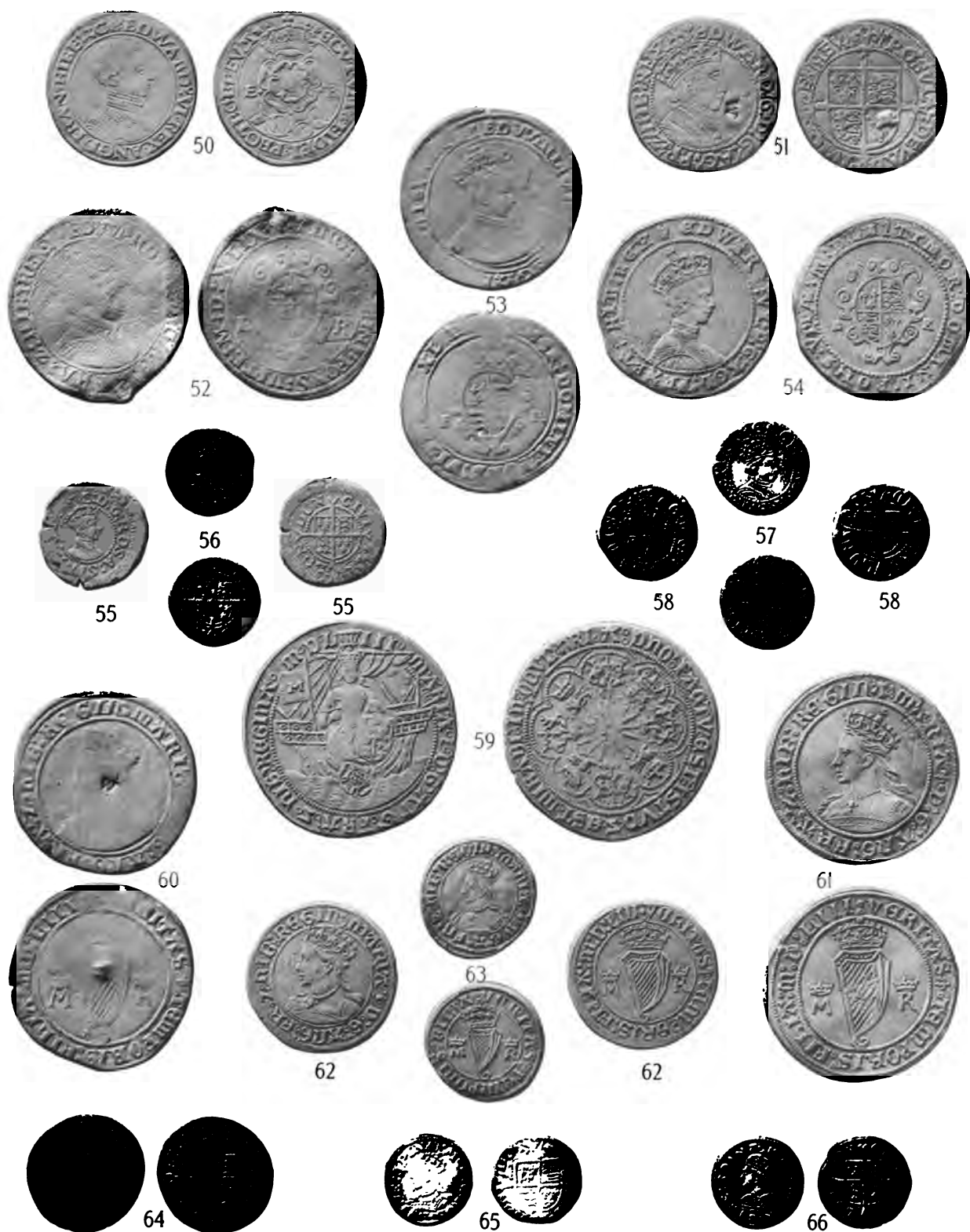
The leap years in that Cycle run 1, 5, 9, 13, 17, 21, 25; therefore year 22 follows a leap year. These years have the Sunday Letters FG, AB, CD, EF, GA, BC (in reverse order); hence year 21 CB is followed by year 22 A. The Sundays in April fall one day later in the month than the Sunday Letter falls in the alphabet. Letter A is 1, therefore the Sundays in April fall on the 2nd, 9th, 16th, 23rd and 30th of the month. Our calculation has already allotted the Paschal Term to April 9; consequently the celebration of Easter in A.D. 909 fell on the following Sunday, *i.e.*, on April 16.

(*To be continued.*)









FORGERIES OF TUDOR COINS.

P.I. IV.



FORGERY IN RELATION TO NUMISMATICS.

PART II. (EDWARD I. TO ELIZABETH).

By L. A. LAWRENCE, F.R.S.A. (IRELAND), *Director*.

IN studying the forgeries of the Plantagenet and later times, the chief feature to be noticed is the relative increase of contemporary forgeries. Imitations of money generally must be nearly as old as the moneys copied, and yet contemporary false pieces of Saxon and Norman times are of very rare occurrence whether taken by themselves or compared with later periods. The reasons for this are probably two-fold. The first may be sought in the tremendous penalties attaching to the offence, consisting of fines to a very large amount and the frequent addition of horrible mutilations of false moneyers, and the second, in the want of development of sufficient artistic skill to produce an imitation which would deceive even the primitive public among whom the pieces were to circulate. The addition of the moneyer's name to the legend doubtless added considerable security, as it enlisted the whole band of moneyers in the detection of the criminal; anyhow, be this as it may, contemporary forgeries certainly become much more abundant when the moneyer's name came to be omitted from the legend on the coin.

When the more recent forms of imitations are taken into account, such as forgeries of rare coins intended to deceive collectors, fabrications made at a date many years later than the date of the original piece, another curious circumstance calls for notice, in the fact that nearly all these pieces bear an inaccurate resemblance to the originals. It will thus be noticed in looking over the accompanying plates, that the really deceptive pieces struck from false dies are the contemporary forgeries.

The reasons here again are not far to seek and again are twofold. In the first place the more careful and elaborate treatment requires a more careful and elaborate attempt to deceive the expert, and secondly, coins of sufficient rarity to demand this extra labour are fewer and better known in relation to the mass of money circulated. To use a vulgar phrase, the game is not worth the candle.

As the result of these reasons the plan of including plates of genuine coins for comparison, as has been followed hitherto, has been relinquished as unnecessary in connection with coins that are so well known.

PLATE I.

No. 1. Pattern groat of Edward I. False dies.

No. 2. Another example from different dies.

No. 3. Dublin penny of Edward I.; reverse legend retrograde. False dies.

No. 4. Another forgery of the same coin. False dies.

No. 5. Penny of Edward II. or III., London. A contemporary forgery in brass.

No. 6. Another of the same period, also contemporary and struck in brass.

No. 7. Penny of Edward III., with English R's. London. A contemporary forgery in copper silvered over. A deceptive struck coin. Mr. Fox has a coin from the same obverse die bearing the name of Canterbury on the reverse, also of copper.

No. 8. Penny of Edward III. Calais. False dies.

No. 9. Double groat of Richard II. York. False dies; an invention.

No. 10. Groat of Richard II. London. False dies.

No. 11. Groat of Richard II. London. From different dies.

No. 12. Half groat of Richard II. London. False dies.

No. 13. Penny of Richard II. London. False dies. The obverse is copied from the home made York coins.

No. 14. Penny of Richard II. York. False dies.

* Nos. 9, 11, 12 and 14 probably emanated from the same atelier as they exhibit the same lettering.

No. 15. Quarter noble of Henry IV. Struck in silver and gilt. This piece has been included here most reluctantly. It is of extremely fine contemporary work and must have been made from mint dies. All the peculiarities of the early work of Henry IV. can be observed on it. A precisely similar original is unknown.

No. 16. Groat of Henry IV. London. A contemporary piece of poor workmanship.

No. 17. Penny of London, probably intended as a copy of Henry V.'s coinage. A contemporary forgery.

PLATE II.

No. 18. Groat of Edward IV. London. Probably mint-mark cross. A contemporary strike in brass. False dies.

No. 19. Another forgery of the same description. Different dies.

No. 20. Another example also struck in brass.

No. 21. A groat of the same period, but the reverse mint-mark is a sun, a brass strike.

No. 22. A further brass strike, the work fair.

No. 23. Half-groat of Edward IV. London. A contemporary forgery in brass, silvered over.

No. 24. A brass contemporary penny of the same king.

No. 25. Another example from different dies.

No. 26. Halfpenny of Edward IV. London. False dies.

No. 27. Farthing of Edward IV. London. A cast invention.

No. 28. Groat of Richard III. London. Mint-mark, dimidiated sun and rose, a cross on the breast, a strike in lead. An invention.

No. 29. Groat of Richard III. London. Mint-mark, a boar's head. False dies; a poor attempt.

No. 30. Double groat of Richard III. London. Requires no comment.

No. 31. Groat of Richard III. London. A companion to No. 30.

No. 32. Half-groat of Richard III. London. A fine copy of an original coin. Cast.

No. 34. Half-groat of Richard III. Canterbury. A struck forgery of poor work, possibly contemporary. The piece is in the British Museum and is described and illustrated in Hawkins's *Silver Coins of England*. The king's name is spelt, **REGARD**.

No. 35. Groat of Richard III. London. The king's crown is arched.

Hawkins describes and figures this piece. His description is worthy of reproduction. He says, "One struck at London differs from all the rest in having the crown arched like Henry VII., but the cross

at the top (of the crown) barely piercing the inner circle ; M M obverse rose (?) and pellet, reverse rose, or rose and sun united. The legend on the reverse is the usual one, but that on the obverse is RICARDVS DI GRACIA REX ANLIE. There is a rose on the breast and no stops between any of the words, M B (= British Museum) 37 grains unique." Hawkins's editor transcribes all alphabets into Roman capitals. The letters on the coin are all Gothic. The engraving in the text-book illustrates the description quoted above. If the accurate copy of the coin given in Plate II. be examined it will be found that the work of the obverse is entirely different from that of the reverse. The latter is clearly of the earlier time of Edward IV., before Henry VI.'s restoration, when the rose mint-mark was in use. The work of the obverse must be left to individual imagination as it does not resemble in the least that on any authorised English coin of any time. The extraordinary legend is equally inexplicable and unsatisfactory. Hawkins points out the weight, 37 grains, another most unsatisfactory feature. The coin must clearly merit illustration here, and, as such, Hawkins's last remark about the piece, viz., unique, is to be welcomed.

PLATE III.

No. 36. Half-groat of Henry VII., of Canterbury. Early arched crown, variety with eye of Providence after POSVI. Cast from a genuine coin.

No. 37. Half-groat of Henry VII., of Canterbury. False dies ; probably contemporary.

No. 38. Half-groat of the same description. Cast from a genuine coin.

No. 39. Groat of Henry VII. with profile portrait **SEPTIM** following the king's name. False dies ; a poor copy of a very rare coin.

No. 40. Groat of Henry VII. Another forgery of the same coin, very well done. False dies.

No. 41. Shilling of Henry VIII. Mint-mark, lys. This is a genuine and very rare coin, but the head, which should be in low relief, has been extensively tooled. The reverse is untouched. A most valuable and fine coin spoilt.

No. 42. Shilling of Henry VIII. Cast from a genuine coin.

No. 43. Shilling of Henry VIII., as 41. False dies.

No. 44. Crown of Henry VIII. A cast invention. It is hardly a copy.

No. 45. Crown of Henry VIII. False dies. This invention often passes as original although not the least like the unique specimen in the Bodleian library. False dies. See *British Numismatic Journal*, vol. i, p. 139 *et seq.*

No. 46. Groat of Henry VIII., of Bristol. A cast from a genuine coin.

No. 47. Groat of Henry VIII. False dies, probably contemporary.

No. 48. Penny of Henry VIII., of Durham, with initials of Wolsey, cast from a genuine and common original.

No. 49. Halfpenny of Henry VIII., with portcullis. False dies.

PLATE IV.

No. 50. Half-sovereign of Edward VI., struck in gold, false dies, a deceptive piece.

A half-crown of Edward VI. in the possession of Mr. Stroud, consists of two genuine shillings joined. The obverse having xxx altered from xii, unfigured.

No. 51. Groat of Edward VI. False dies.

No. 52. Shilling of Edward VI. Cast from a genuine coin.

No. 53. Shilling of Edward VI. Cast from a genuine coin.

No. 54. Shilling of Edward VI. False dies.

No. 55. Penny of Edward VI. with bust. False dies.

No. 56. Penny of Edward VI. Another forgery of the same coin. False dies.

No. 57. Penny of Edward VI. A further copy, again false dies.

No. 58. Penny of Edward VI. Sovereign type. False dies.

No. 59. Rial of Mary. Struck in gold. False dies.

No. 60. Shilling of Mary. Irish. Cast from a genuine coin.

No. 61. Shilling of Mary. Irish. False dies.

No. 62. The corresponding groat. False dies.

No. 63. The half-groat of the same set. False dies.

No. 64. Half-groat of Mary. English. The obverse from the same die as No. 63. Struck on another coin. False dies.

Nos. 59, 61, 62, 63 and 64 are said to be by Emery. The work is much better than that on the originals.

No. 65. Penny of Mary with bust. False dies.

No. 66. Penny of Mary with bust. False dies ; a poor attempt.

No. 67. Shilling of Philip and Mary. The date, 1554, under the bust. Known in silver, copper and lead. False dies.

No. 68. Shilling from the same dies. 1554 has been altered to 1557.

No. 69. Testoon of Francis and Mary. Produced by alterations in the dies of No. 68.

No. 70. Testoon of Francis and Mary. Obverse from the same die as No. 69.

No. 71. Testoon of Mary. Reverse from the same die as No. 70. The coins of Ireland and Scotland have been illustrated here to show the connection between these and the English coins related to them. It would be impossible to even guess the relationship of No. 71 to 67 without having the intermediate coins to compare with them.

Mr. Stroud has a foreign coin about the size of a dollar, but cut down, on which the obverse of No. 67 has been impressed. This is probably intended for a half-crown.

No. 72. Half-groat of Philip and Mary. False dies.

No. 73. Half-groat of Philip and Mary. Probably produced from a coin of Elizabeth by alteration and tooling.

No. 74. Penny of Philip and Mary. False dies. A dangerous forgery.

No. 75. Half-crown of Elizabeth. Mint-mark, 1. Cast.

No. 76. Half-crown of Elizabeth. Mint-mark, 1 ; roses have been added each side of the head. An invention, cast.

No. 77. Half-crown of Elizabeth. Mint-mark, 1. False dies.

No. 78. Half-crown of Elizabeth. Mint-mark, 2. Altered from No. 77 by changing the numeral. The same dies.

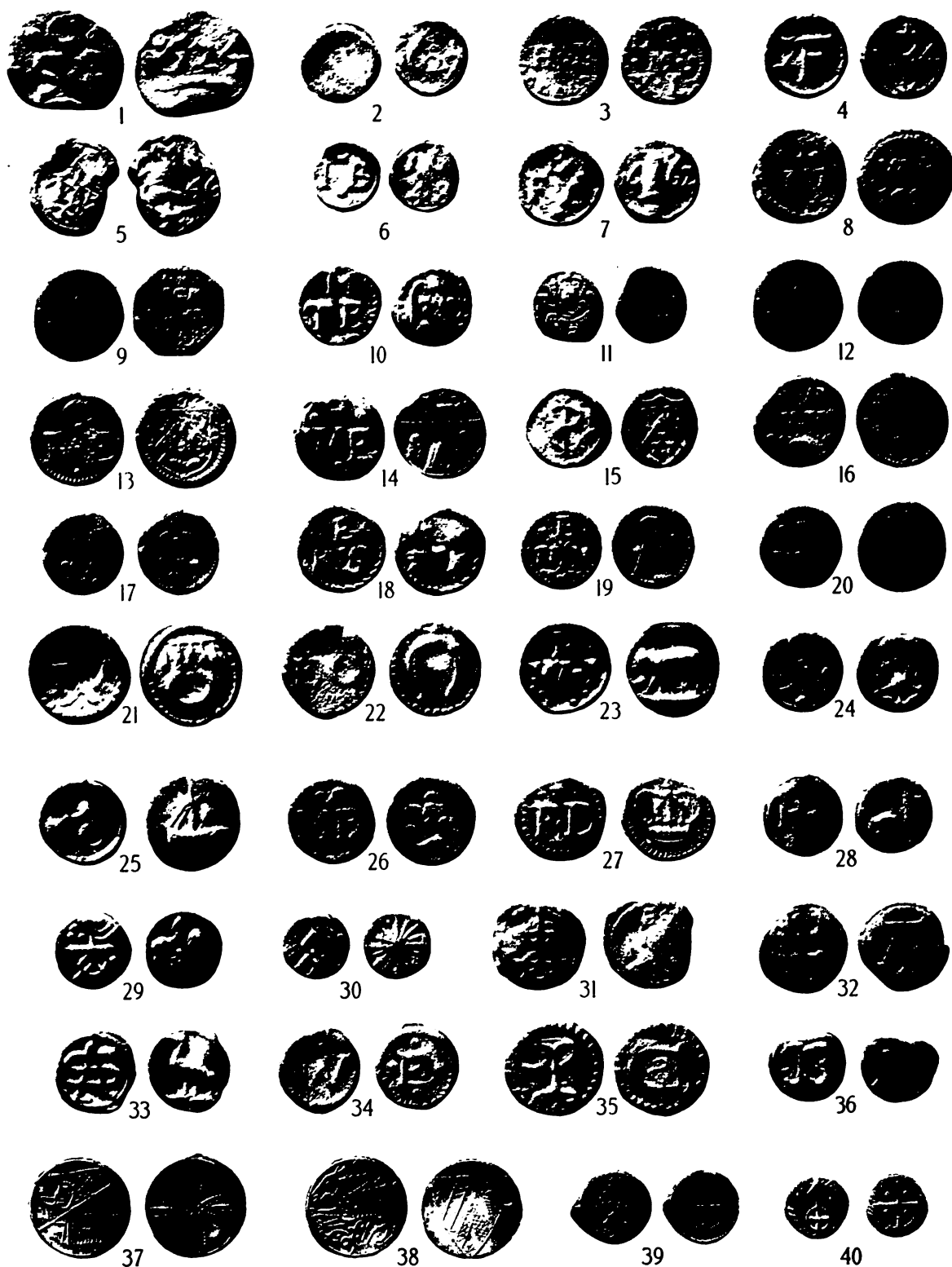
No. 79. Half-crown of Elizabeth, from the same dies as No. 78, but the head has been altered to produce the extraordinary bust shown.

In the National Collection there is portion of a gold piece showing the same bust.

No. 80. Sixpence of Elizabeth, 1561. False dies. Probably contemporary.

No. 81. Half-groat of Elizabeth. A cast from a genuine coin.

LEADEN TOKENS.



Nos. 1-8. DATED SPECIMENS.
 .. 9-12. NAME OR ADDRESS OF ISSUER.
 .. 13-15. ARMS OF TRADE GUILDS.
 .. 17-22. BEARING TRADE SIGNS.

Nos. 23-28. BEARING HOUSE SIGNS.
 .. 29-32. .. MERCHANTS' MARKS.
 .. 35-36. .. GOthic INITIALS.
 .. 37-40. EARLY ECCLESIASTICAL.

LEADEN TOKENS.

BY J. B. CALDECOTT AND G. C. YATES, F.S.A.

WHILST the proposals and experiments which resulted in the adoption and general issue of a copper currency for Great Britain have, from a numismatic standpoint, been fully chronicled, and the token issues of the seventeenth and eighteenth centuries have received due attention, those earlier tokens that form the subject of this paper have been almost entirely overlooked.

Snelling figures a few which, if one can judge from the very rude figures given, do not appear to agree in character with the dates they bear. Some others are described without comment in the catalogue of the Beaufoy Cabinet, and various ecclesiastical pieces are mentioned in stray articles in the early issues of *The Numismatic Chronicle*.

Thus it may be claimed that, in regard to this series, there exists what is somewhat rare nowadays in numismatology, an almost untouched field.

The metal of which these tokens are composed is a perishable one. Their small intrinsic value did not encourage hoarding, and consequently existing specimens are fewer than would be supposed from their wide circulation, and the general absence of dates or legends upon them may have discouraged investigators.

"Nummorum famulus," which appears upon some of the patterns or the copper coinage of Charles II., aptly describes them. They are the helots of the numismatic world. The hewers of wood and the drawers of water proclaimed against in frequent proclamations, they yet supplied a want unfilled by the then existing currency, and by their very baseness hurried on the measures taken to replace them.

It is the fashion nowadays to whitewash historical reputations, and if it can be proved that these lead tokens were the parents of those better finished issues of 1648–1670, that they were an attempt to supply the legitimate wants of the community, and that they were a potent influence in forcing the Government to adopt measures towards the same end, then, at least, a case has been made out for their better study and investigation.

That they were in use in England early in the sixteenth century is evidenced by Erasmus, who alludes in his *Adagia* printed in Paris in 1500, to “plumbeos Angliae”¹ as being in general circulation, and the scarcity of small monies among the trading community appears to have been severely felt from this period onwards.

Those engaged in the important manufacture of cloth were by statute required to affix to each piece their seal of lead, and it has been thought that these seals were the true parents of the leaden tokens, though it seems more probable that they had their origin in certain ecclesiastical and pilgrim tokens.

Against the circulation of various base metal substitutes for the regular currency many proclamations are recorded from the early part of the sixteenth century, but as no real remedial measures were adopted, and the existing farthings and halfpence in silver were too few in number and too liable to loss to meet with general acceptance, these proclamations appear to have failed in their effect.

In 1574 proposals were made to coin halfpence and farthings of base silver to remedy the abuse of lead tokens, and in these proposals the latter are spoken of as made of “lead, tin, latten, and even leather,”² and their circulation was forbidden by proclamation under pain of fine and imprisonment³ soon after.

Budelius, in a work published in 1591,⁴ speaks of leaden money current among the English.

A license was granted by the Lords of the Privy Council on

¹ Ruding, vol. ii, p. 69.

² Snelling, *Copper Coins*, p. 2.

³ Ruding, vol. ii, p. 164.

⁴ *De Monetis et Re Numaria*, vol. ii, p. 5. Cologne, 1591.

May 12th, 1594, to the Mayor and Aldermen of Bristol to coin a farthing for general use, on condition that all previous abuses in that city were reformed, that the lead and other tokens issued by persons without authority should be called in, and the value at which they were first issued should be rendered in exchange in current money.¹

Sir Robert Cotton, in his paper entitled "The Manner how the Kings of England have supported their Estates," addressed to King James, in 1611, says :

"The benefit of the King will easily fall out, if he restrain retailers of victuals and small wares from using their own tokens ; for, in and about London, there are above three thousand who, one with another, cast yearly five pounds apiece of leaden tokens, whereof the tenth remaineth not to them at the year's end, and when they renew their store that amounteth to above £15,000 ; and all the rest of this realme cannot be inferior to the city in proportion. For the prejudice, since London, that is not the twenty-fourth part in people of the kingdom, had in it, as found by a late enquiry by order of the late queen, above 800,000, so falleth out to be two pence each person in the entire state ; it may be nothing either of loss, by the first uttering being so easy, nor burthen any with too great a mass at one time, since continual use will disperse so small a quantity into so many hands ; but, on the other side, will be of necessary use and benefit to the meaner sort, except the retailers, who made as much advantage formerly of their own tokens, as the King shall now ; for the buyers hereafter shall not be tyed to one seller and his bad commodities, as they are still, when the tokens hereafter made current by authority, shall leave him the choice of any other chapmen ; and to the poor, in this time of small charity, it will be of much relief, since many are like to give a farthing almes, who will not part with a greater sum."

This statement is a proof of how common the issue of leaden tokens had become, and the issue of what are commonly known as the "Harington" farthings appears to have done little to check them, as the "Haringtons" themselves were sadly deficient in intrinsic value, and quickly became depreciated.

Thus there is abundant evidence of a wide and general use of leaden tokens from the time of Henry VII. to that of the Common-

¹ A specimen dated 1511 occurred in the Macfadyen Sale, 1907.

wealth, and it now remains to be considered how the existing specimens fit into the period mentioned.

In treating of those commonly known as "Seventeenth Century Tokens," it has been too much the custom to suppose that this great and general issue, embracing as it did in a few years practically every town and village of any importance in Great Britain, was the result of some sudden impulse, in fact, that it was a case of spontaneous generation and not of natural evolution.

This series, with its careful statement of name, address, occupation, date and sometimes value, lends itself naturally to the patient cataloguer, but we find that it was only the more general adoption of customs long in use, which the spirit of independence to rule that followed the Civil War may well have fostered.

So in dealing with the specimens hereafter noticed, it is proposed to deal first of all with those bearing most resemblance to "The Seventeenth Century" tokens.

One great and unfortunate feature of the leaden tokens is the scanty information they convey, as hundreds of them give you little more information of their origin than this, and consequently it is only possible to classify them broadly into classes, and to then try and place those classes in some order of date.

First of all there are a few nearly corresponding with, and probably almost contemporary with the seventeenth century tokens, inasmuch as they bear more or less of the names and addresses of their issuers.

As these may be more nearly identified in the future, it may be of interest to record fully eight specimens of this class which have come under the notice of the writers of this paper.

1. Octagonal.

Obverse.—WILL | IAM | BAILY in three lines.

Reverse.—OF | RICH | MOND | 165(1 ?) in four lines. Plate, Fig. 9.

Probably of Richmond in Surrey.

2. *Obverse*.—^M
T B

Reverse.—Savoy in script letters. Fig. 10.

3. *Obverse*.—Shield of arms of the Weavers' Company.

(KID?)DERMINSTER.

Reverse.—Blank.

As this does not bear the arms of the town, it is probably issued by some local weaver or clothworkers' guild there.

4. *Obverse*.—IOHN⊕⊕ROWTHE⊕ round seeded rose.

Reverse.—IN⊕FOSTER⊕LANE⊕IR in centre.

This is of Cheapside, London, and there is a token issued by Lancelott Ayres with the same sign. Williamson, p. 607, No. 1114.

I

5. *Obverse*.—DAVID IAMESON DK in centre.

Reverse.—Checkered lozenge. •

This is probably a Scotch token.

6. *Obverse*.—RN with King's bust (? James I.) half length with sceptre in right hand between.

Reverse.—IN ST. | MARTINS | LANE in three lines. Fig. 11.

7. *Obverse*.—CHRISTOPHER . FLOWER⊕ Fleur-de-lis in centre.

Reverse.—Arms of the Bakers' Company. Fig. 12.

8. *Obverse*.—RICHD(?)ALLON in two lines.

Reverse.— ? | ? LANE in three lines.

All these are probably contemporary with the earlier seventeenth century tokens, and represent a period of transition between the more usual leaden pieces with their meagre inscriptions and those of brass and copper that succeeded them.

The next to be dealt with are some bearing dates, as these definitely prove that many of the leaden tokens preceded those of brass and copper, and of this class there are the following which may serve as general types :—

1. *Obverse*.— . G .
S . I

Reverse.—1624. Fig. 1.

2. *Obverse*.—Blank.

Reverse.—1629. Fig. 2.

3. *Obverse*.—I ∴ H or H ∴ I within serrated border.

D . C

Reverse.— M (1640).

X . L Fig. 3.

4. *Obverse*.—Portcullis.

Reverse.—1641.

5. *Obverse*.—^S
G C
Reverse.—^I
1641
6. *Obverse*.—F
Reverse.—1844. Fig. 4.
7. *Obverse*.—16 \$ 44
Reverse.—Eagle with outstretched wings.
8. *Obverse*.—I S.
Reverse.—Bell between 16-46. Fig. 5.
9. *Obverse*.—I B
Reverse.—¹⁶
48 Fig. 6.
10. *Obverse*.—E . B
Reverse.—¹⁶
50
11. *Obverse*.—^G
C M
Reverse.—Dog seated between 16-51.
12. *Obverse*.—^G
F A
Reverse.—¹⁶
56
13. *Obverse*.—^P
WS
Reverse.—¹⁶
59
14. *Obverse*.—F B with sheaf of wheat between and 59 below.
Reverse.—Blank.
15. *Obverse*.—^B
FA
Reverse.—16-62 with sugarloaf dividing the date. Fig. 7.
16. *Obverse*.—^D
I I.
Reverse.—^{WR}
1662 Fig. 8.

The initials on this reverse are probably those of a place.

The proportion of these bearing dates or names to the general mass is very small and precludes the minute cataloguing to which the succeeding seventeenth century tokens have been subjected, whilst those having on them initials and either the trade sign of the

issuer, or else a trade emblem or the arms of his trade guild are more commonly met with.

Of tokens bearing the arms of the London Livery Companies, those having on one side the arms respectively of the Grocers', Merchant Taylors', Drapers', Clothworkers' and Weavers' Companies have been met with, and doubtless further search will reveal many more of the trade guilds. (Plate, Figs. 13 to 16.)

Most of these have on the other side that well-known triangular arrangement of the initials of husband and wife surmounted by that of their common surname, and in reference to this it must strike one that such a practice reveals a much closer business connection between husband and wife than usually prevails in the present day (more nearly such as now exists among our *bourgeois* friends across the Channel); but whether this equality dated from the accession of the Virgin Queen must be left to some student of the rise of feminine influence to determine.

There is also a large class with the trade sign of the house from which they were issued. Of these, specimens with the following animal signs are shown: elephant, lion rampant, bear and dog, hart (whether white or red is not heraldically shown), and leopard rampant.

Of other signs are: crowned rose (Fig. 24), ship (Fig. 25), pear (of remarkable proportions), double-headed eagle, three arrows in saltire, dolphin, St. George and dragon. (Fig. 26.)

Of those with genuine trade signs are: a blacksmith at his forge, two wheatsheaves (baker), cloth shears (tailor), glove (glover). (Figs. 17, 18, 19 and 20.) In common with the previous ones, all these have upon the obverse either three or two initials, as the marriage age of the period was a very early one, it might be suggested that the latter are those of old and crusted bachelors or widows.

These initials have with them either (*a*) a knob or floral design connecting them; (*b*) quatrefoils or cinquefoils between them; (*c*) are with or without plain dots, of which probably (*a*) is the latest and (*c*) the earliest form.

Some with two initials only are probably somewhat earlier, as evidenced by the form of the letters, and of these are found specimens

bearing the signs of the crown (Fig. 27), stick of candles over crescent (Fig. 21), radiated sun, wyvern (Fig. 28), horseshoe (Fig. 22), halbert. These last are of a harder alloy than those previously mentioned, which is a good general proof of greater age, and whilst some of these contemporary with the seventeenth century tokens are struck from dies, all the others (until we get back probably to A.D. 1500) are, generally speaking, cast.

Up to this point all were probably issued (judging by their similarity to the dated specimens) between 1600 and 1670, but the next class was probably issued before the former of these dates, as they bear on them what are known as merchants' marks.

These marks are found carved over the doorways of the old merchants' houses, stamped upon their tokens and cut upon the brasses on their tombs, and in days when the visitations of the heralds were a reality, and the misuse of armorial bearings a heavy offence, they served alike as a substitute for arms and as trade marks.

Of the specimens found the majority bear upon one side the merchants' mark and on the other the trade sign, and of these latter there have been noticed specimens bearing on them the horse, king's head (Edward IV.) (Fig. 31),¹ fleur-de-lis, mermaid, and radiated sun (Fig. 30), are shown, whilst in others these signs are replaced by a monogram (Figs. 32 and 33), and it is worth consideration whether the use of monograms has not largely sprung from these merchants' marks, which usually had initials incorporated into their design.

Lastly, so far as this paper is concerned, are those bearing initials (Figs. 34, 35 and 36), which from their form are certainly not later than 1550 and some probably nearer 1500.

All these mentioned are lead or of some alloy of lead and tin, with an increasing hardness of alloy as we get farther back, and generally they are of very similar size, which leads one to suppose that they passed for one common value, probably that of a farthing.

Nothing except the last class has been described that does not in some way or other bear upon it evidence that it was issued for

¹ Though this head is probably proof of an issue previous to 1550, no contemporary origin is claimed for this token.

purposes of trade, and the writers have been careful not to attribute to any of them undue antiquity. Any attempt to date particular specimens can only be done in a general way, and one class would probably overlap the other. For instance, we find by dated specimens that lead tokens persisted up to the end of the issue of those in brass and copper in 1672, probably on behalf of some crusted Tories of the period who held that what was good enough for their parents was good enough for them.

Amongst those for which no claim is made as having passed as money are the lead pledges bearing references to Elizabeth, and Mary Queen of Scots, which are probably rightly classed as medals, and as such are described in *Medallic Illustrations*.

There are also numerous thin pieces (Figs. 37 to 40), bearing sacred emblems or pilgrim figures, which were probably given away at many of the numerous shrines visited by pilgrims, and also smaller ones with initials or sacred emblems, which most likely were *jetons de presence* at masses. Many of these date certainly before 1400, but being mainly ecclesiastical, if dealt with at all, it must be in a future paper.

Cloth marks, too, those signs of origin placed upon each piece of cloth by the makers, are often confused with lead tokens; but these are readily distinguished by anyone acquainted with the series, and none are described here. There are also certain thin pieces bearing a general superficial resemblance to the silver coins (*cf.* Figs. 39 and 40), that may well have passed as small change in the same way as the Nuremberg pieces are supposed to have done, but they bear no signs of being more than general counters.

The heavy dumpy lead pieces often met with were mostly used after 1700, at a time when they had degenerated into mere alehouse checks, though a selection of the less badly designed of these may be worth dealing with at some future date.

Sketchy and incomplete as this short survey is, it is hoped that the publication of this paper may cause collectors to examine their cabinets and to bring forth from them, what is after all the most satisfactory evidence, further specimens to widen our knowledge and to fill in the

gaps that must exist in any gathering collected by one person and from one area.

The specimens mentioned have mostly come from excavations in the city of London, from the River Thames and from the pulling down of houses in London or the home counties, and are all in the collection of Mr. J. B. Caldecott. They probably circulated within a much more limited area than the seventeenth century tokens, in fact the only other district beyond those just mentioned in which they are usually found seems to be the eastern counties, in which they are perhaps more common than anywhere else. This is most likely due to the great cloth manufacture carried on in this district, and the use of lead in the form of cloth marks may have paved the way here for its use as tokens.

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The British Numismatic Society.

PROCEEDINGS.

1907.

ORDINARY MEETING.

January 23rd, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.

President, in the Chair.

The Minutes of the ORDINARY MEETING, held on November 30th, 1906, and those also of the ANNIVERSARY MEETING were read, confirmed, and signed by the President.

Certificates of Candidates for Election.

The PRESIDENT read the certificates of four candidates for membership and the names of the signatories thereto, viz. :—

William Bevington Gibbins, Esq.

The Royal Museum, Berlin.

John Harris Tyars, Esq.

Kenyon Pascoe Vaughan-Morgan, Esq.

It was proposed by the PRESIDENT, seconded by Mr. BERNARD ROTH, and resolved, that these certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Ballot.

The Ballot for the three candidates for membership proposed at the meeting on November 30th, 1906, was held, and the President declared that all had been elected.

Admissions.

The following Members were admitted in pursuance of Chapter II, Section 10, of the Rules, viz. :—

Major Raymond Frederic Boileau, J.P.

Edward Gerrish, Esq., M.A.

Arthur M. Lawrence, Esq.

Andrew Murdoch, Esq., M.B., C.M.

Presentations.

Miss H. Farquhar.—“Corolla Numismatica.”

Mr. T. A. Carlyon.—An Album to contain the signatures of the Royal Members of the British Numismatic Society, bound in red morocco.

Mr. H. Ling Roth.—“The Yorkshire Coiners and Old and Prehistoric Halifax,” by the donor.

Messrs. Spink and Son.—*The Numismatic Circular*, 1906.

Exhibitions.

Mr. A. H. Baldwin.—An unpublished Charles II. farthing of 1673, with BRITINNIA on the reverse. An

unpublished countermarked Spanish dollar for Canada, 1772, differing from those figured in *The British Numismatic Journal*, vol. i, p. 353, and Davis's "Nineteenth-Century Token Coinage," Plate A, No. 3, in having the abbreviation ORD (for ORDINATIONE) omitted, and in having an incuse line down the centre of the "5" added.

Mr. Stanley Bousfield.—A Charles II. error halfpenny of 1672, with CRAOLVS on the obverse, but otherwise ordinary; a Charles II. error halfpenny of 1673, similar to the previous coin (the later coin in very fine condition); a William III. error halfpenny of 1696, reading "TERTVS" on the obverse. This is an unpublished variety. Six William III. silver proof farthings of 1695, 1696 and 1697, completing, with the common proofs of 1698 and 1699 and the one of 1700 (from the Montagu and Mackerell collections), the exhibitor's series of silver proofs corresponding in respective dates with the series of copper farthings issued in this reign; a William III. silver proof halfpenny of 1696. Silver proofs of the halfpenny and the farthing for this year and for 1697 are unpublished; a William III. silver proof halfpenny dated 1699 in the exergue and counterstruck on a shilling of the date of which only the first two figures, viz., 16, are legible. The edge is grained.



ERROR HALFPENNY OF WILLIAM III.

Mr. L. L. Fletcher.—Two seventeenth-century tokens of

Letterkenny, co. Donegal, issued by William Anderson and James Coningham.

Mr. H. W. Taffs.—Benjamin Nightingale's private token, 1843; a copper gilt proof, unpublished. Benjamin Nightingale's private token, 1843; a bronze proof struck on a thick flan, together with a tab in Mr. Nightingale's handwriting. This is unpublished, and is believed to be unique. A small silver box, *temp.* George III., with a shield engraved in outline. This was probably intended to bear Mr. Nightingale's arms, but was never completed. The items were all purchased from Mr. Nightingale's widow.

Papers.

Mr. L. A. Lawrence.—“A Remarkable Gold Coin of Henry VIII.”

Mr. A. Anscombe.—“The Anglo-Saxon Computation of Historic Time in the Ninth Century.”

Mr. L. A. Lawrence contributed a paper on “A Remarkable Gold Coin of Henry VIII.,” which he exhibited to the meeting. This was an example of the long-sought-for “Crown of the Rose,” the issue of which was ordered by a proclamation of August 22nd, 1526; but although a specimen was engraved by Snelling in 1763, Plate II, No. 14, and reproduced by Ruding, Plate V, No. 9, no such coin was believed to be extant. The piece exhibited varied from that engraved in bearing a rose as the mint-mark on either side, and in other minor details.

Mr. A. Anscombe read the introduction and synopsis of a monograph on “The Anglo-Saxon Computation of Historic Time in the Ninth Century,” in which he directed the special attention of the numismatologist to the importance of the subject. Instances of uncertainty, confusion and divergence of opinion were given, and it was explained how these difficulties had arisen, and how they were to be avoided in future by employing the rules and principles of ecclesiastical computation in a critical consideration of the methods and customs which influenced the writers of different periods.

ORDINARY MEETING.

February 20th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,
President, in the Chair.

The Minutes of the ORDINARY MEETING, held on January 23rd, 1907, were read, confirmed, and signed by the President.

The PRESIDENT read letters from Mr. Heywood and Mr. Sharp Ogden stating that through illness they would be unable to attend the meeting to read their papers.

New Members.

The PRESIDENT read the following certificate for membership and the names of the signatories thereto, viz. :—

The Bibliothèque Nationale de France.

It was proposed by the President, seconded by Mr. Bearman, and resolved, that this certificate be suspended, and it was ordered that the Library be balloted for at the next meeting.

Ballot for Members.

The Ballot for the four candidates for membership proposed at the Meeting on January 23rd, 1907, was held, and the President declared that all had been elected.

Admissions.

The following members were admitted in pursuance of Chapter II, Section 10, of the Rules, viz. :—

The Berlin Royal Museum.

The Corporation of the City of Winchester.

The President read letters received from the Private Secretaries to H.M. Queen Alexandra and H.R.H. the Prince of Wales announcing their consent to sign the Album presented to the Society by Mr. T. A. Carlyon, and the President produced the Volume duly signed by H.M. The Queen and H.R.H.

Exhibitions.

Mr. L. A. Lawrence.—A penny of Edward the Confessor, of the pointed helmet type, struck at Barnstaple. Reverse: + ÆLFRIELON BERDE :: a new type for this mint.



PENNY OF EDWARD THE CONFESSOR STRUCK AT BARNSTAPLE.

A penny of Edward the Confessor, of the pointed helmet type, but with the head reversed, struck at Worcester. Reverse: + EILRIC ONN PIHEREC.

A penny of Edward the Confessor, of the pointed helmet type, with head reversed, struck at Lincoln. Reverse: + OÐRICE ON LINEO.

Mr. B. Roth.—A penny of Stephen, of the Nottingham mint, as Hks. 270, with a small cross in relief over the King's head; obverse: + STIEFNE RE; reverse: + SPEIN ON SNOT. A cut halfpenny of the same, defaced. A penny of the Empress Matilda (*temp.* Stephen); Hks. 634, was engraved from this. A "Eustace" penny (*temp.* Stephen), Hks. 283; obverse: + EVSTACIVS.

A Guiennois of Edward III., of Rochelle mint. Six Salutes of Henry VI.: *a.* Amiens, m.m.—an Agnus Dei; *b.* Chalons-sur-Marne, m.m.—a crescent; *c.* Dijon, m.m.—St. Suavie or St. Veronica; *d.* Le Mans, m.m.—

a root; *e.* Paris, m.m.—a crown; *f.* Rouen, m.m.—a leopard. An Oxford pound-piece of Charles I., dated 1644.

Mr. A. H. Baldwin.—An octagonal seventeenth-century token of Windsor; obverse: Samvel benet from windsor to Y^e eagle & child in y^d Stran, below which are represented a horse and coach; reverse: from the eagle and child to windfor to the——followed by a figured Queen's head.

This, although undated and its value not denoted, is of similar size and character to the ordinary octagonal seventeenth-century token. It came into the hands of the exhibitor with a large number of Berkshire tokens which had not been disturbed for nearly a century. They included a number of unpublished pieces, of which this is perhaps the most interesting as a very early example of a coach proprietor's token.

Mr. L. L. Fletcher.—Ionian Isles—four denarii dated 1821. A seventeenth-century token issued by Richard Greenwood, of Dublin, with figure of St. Patrick similar to that upon the St. Patrick's halfpence.

Mr. S. M. Spink.—West Indies (General), a quarter dollar.

Barbados.—A Spanish dollar with heart-shaped hole; a heart-shaped piece, value three bits; a Spanish dollar with circular hole; the centre portion of a Spanish dollar, value six bits.

Grenada.—A triangular piece of a dollar, value one bit.

Guadeloupe.—A Spanish dollar with a square hole, and the square bit itself.

Jamaica.—A Spanish dollar, and an eighth of a dollar, both countermarked G.R.

Montserrat.—A triangular portion of a Spanish dollar, countermarked M. $\frac{1}{4}$ dol.

St. Lucia.—The centre portion of a dollar, stamped
ST. LUCIE $\frac{1}{2}$ dol.

The "Saints" half of a Spanish dollar, counter-
marked TORTOLA V S.

St. Vincent.—A part of a Spanish half-dollar,
countermarked SV, in monogram, $\frac{1}{4}$ dollar.

Trinidad.—The bit cut out of the centre of a
Spanish dollar, crimped and marked T.

Tobago.—A Spanish dollar with octagonal hole in
the centre ; also an octagonal bit.

Tortola.—One half of a Spanish dollar counter-
marked TORTOLA, $\frac{1}{2}$ dollar.

British Guiana.—A Spanish dollar with a crimped
hole, countermarked $\frac{E \& D}{3 G^L}$, in an oval.

New South Wales.—A "Holey" dollar, together
with the bit, value 15 pence.

Lieut.-Colonel H. W. Morrieson.—A Henry III. penny,
LONDON. Long Cross, Hks. 289 ; an Edward I.
halfpenny, BERWICK, with bear's head in two
quarters ; an Edward III. Aquitaine half sterling,
before 1360. Poey d'Avant, 2878. Ainslie, IV. 20 ; an
Edward III. Aquitaine sterling, after 1360. P. d'A.
2915. A. VII 92 ; an Edward the Black Prince
Aquitaine groat, AGEN. P. d'A. 2921, A. IV. 38 ; a
Henry V. Billon Double, as Heir of France, ROUEN.
P. d'A. 3172, A. VI. 80 ; a Henry V. Billon Gros, as
King of France, ROUEN. P. d'A. 3173, A. VI. 77 ;
five Henry VI. Gros Blancs, PARIS. P. d'A. 3190.
ROUEN. P. d'A. 3191, A. VI. 82 ; ST. LO. P. d'A.
3192 ST. QUENTIN. P. d'A. 3194 ; CHALONS-SUR
MARNE. P. d'A. 3197 ; a Henry VI. light groat,
LONDON. A Henry VII. Perkin Warbeck groat, and
a Henry VIII. groat, TOURNAY. having on the
obverse a crowned head, on the reverse a shield.

- A Charles II. pattern farthing. Reverse: a ship and QUATUOR MARIA VINDICO. Mont. 168; a Charles II. silver farthing, 1676. Obverse: a bust. Reverse: BRITANNIA VINDICO, Mont. 13.
- A George III. pattern penny, British commercial penny. Reverse: Britannia seated on a field gun.

Half-crowns to illustrate Emergency mints of Charles I.

Bristol.—1643, 1644, 1645. Hks. Nos. 1, 3 and 8 respectively.

Chester.—No date. Hks. No. 1.

Exeter.—1642, 1644, 1645. Hks. Nos. 1, 9, and 13; and four undated. Of these, *a* is distinguished by a sash tied in a bow, like crown, Hks. No. 2 (479); and *b* by a horse, like OXFORD, 1643, OX. The two others of no date being Hks. 3, 5.

Oxford.—1642 and 1643, varieties of Hks. 2, 5; and 1643, 1644, 1645, 1646. Hks. Nos. 10, 13 (variety), 21, 27.

Shrewsbury.—1642. Hks. 2, and another of the same date, with value; Hks. No. 5 (variety).

Weymouth.—Undated, with a shield on the reverse, Hks. No. 3; and one 1644, reverse, Declaration, Hks. No. 6.

Worcester.—No date.

Gun money to illustrate "The struggle of James II. in Ireland, 1689-91."

A sixpence, June 1689; a half-crown and a shilling, both of large size, dated August, 1689; a farthing, 1690, of pewter with brass plug; a half-crown and a shilling, both of small size, May, 1690; a crown, 1690, struck over a large half-crown; two "Hibernia" farthings of 1691, one with a large, the other with a small flan.

Tokens, etc., to illustrate deficiency of currency in George III.'s reign.

Flan of a shilling to show state of coinage prior to 1816. A Spanish dollar, a half-dollar and an eighth-dollar each with oval countermark; a forgery of the dollar exhibited; a Spanish dollar restruck, with device 1804 and a forgery of it; a Bank token for three shillings, 1811, with bust, and another for eighteenpence, together with their respective counterfeits; a Bank token for three shillings, 1812-16, with head, and another for eighteenpence, together with their respective counterfeits; a pattern for a Bank token for 5s. 6d., by Philp. Obverse: bust to left. Reverse: BANK TOKEN 5s. 6d., 1811; a pattern for a Bank token for 9d. Obverse: as for the 3s. 1812-16. Reverse: BANK TOKEN—9d—1812; a portion of a Spanish dollar, countermarked TORTOLA.

Mr. Willoughby Gardner.—Specimens of Roman brass coins recently found on the Little Orme's Head. A list and description of these coins are promised by Mr. Gardner.

Papers.

Lieut.-Colonel H. W. MORRIESON read a paper on "The Influence of War on the Coinage of England," in which he traced the close connexion between the legends and devices of the money and passing constitutional changes in the history of England. In illustration of this subject the Author, Mr. Bernard Roth, and Mr. S. M. Spink exhibited a large series of coins.

Mr. NATHAN HEYWOOD contributed a paper on "The Coins of the Ionian State," with special reference to the nineteenth century, and exhibited a selection of the coinage.

In a note on the Irish copper pieces known as "St. Patrick's Pence," Mr. W. SHARP OGDEN put forward the suggestion that they were issued for political purposes, and that their legends would bear a double interpretation.

ORDINARY MEETING.

March 20th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President; in the Chair.

The Minutes of the ORDINARY MEETING, held on February 20th, 1907, were read, confirmed, and signed by the President.

New Members.

The PRESIDENT read the following three certificates for membership and the names of the signatories thereto, viz. :—

Arthur Grimwood, Esq.

Shirley Fox, Esq., R.B.A.

Central Library and Museum, Bootle.

It was proposed by the PRESIDENT, seconded by Mr. Baldwin, and resolved, that these certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Ballot.

The Ballot for the Bibliothèque Nationale de France, proposed at the meeting on February 20th, 1907, was held, and the President declared that the same had been elected.

Admissions.

The following Members were admitted in pursuance of Chapter II, Section 10, of the Rules, viz. :—

Kenyon Pascoe Vaughan-Morgan, Esq.

Henry Francis Tasker, Esq.

Exhibitions.

The Committee of Colchester Museum (per Henry Laver, Esq., F.S.A.), a silver penny resembling in both obverse and reverse that of Coenwulf figured in Hks., No. 75. The obverse legend is + C^WOR . COEX (retrograde), and on the reverse the name of the moneyer appears as TVR. This coin was found at Bradwell-on-Sea in the course of Mr. Parker's excavations on the site of Othona. (Ythancaestir.)



PENNY OF A TYPE OF COENWULF.

Mr. W. Sharp Ogden.—A silver penny resembling the coins of Alwald, King of Northumbria, and the Northumbrian coins reading "Mirabilia fecit." The legends are not clear, but seem to be—obverse : + AILDEEV ~~W~~EX ; within an inner circle a cross pattée having a pellet in the 1st and 4th angles ; reverse : HIORE~~9~~ over TATAS. This coin is from the Cuerdale hoard.



PENNY ATTRIBUTED TO ALWALD.

The President.—A silver penny of Cnut, of the Gioðaburh (Ythancaestir) mint. Hildebrand, Type I.

Obverse : + ENV · · / T REX.

Reverse : + LEOMÆR ON GEOD.

Mr. A. H. Baldwin.—Ten seventeenth-century leaden tokens :—

1. Obverse : a dog bounding to left ; reverse : R.A.I.
2. Obverse : a pair of scales, with a weight between ;
reverse : A.B.F.
3. Obverse : G.V ; reverse : 58 (for 1658).
4. Obverse : a padlock ; reverse : V.F.C.
5. Obverse : T.I.V ; reverse : 1655.
6. Obverse : P.C. ; reverse : D.
7. Obverse : V.C. ; reverse : a windmill and five pellets.
8. Obverse : B ; reverse : T.
9. Obverse : a dove with an olive branch ; reverse :
I.D. (about 1710).
10. Obverse : a sugar loaf between F. and M. ; reverse :
an eagle to the right. Irish, probably about
1800.

Mr. W. H. Heathcote.—A collection of early leaden tokens.

Mr. L. A. Lawrence.—A heavy penny of Henry IV., struck at York, weight 16 grains, and a halfpenny of Henry IV. struck at London. Both coins exhibit a sunken annulet on the mint-mark, which is a cross. Edinburgh ; a half-groat of James III., of Scotland, last coinage with AT at the sides of the King's neck.

Mr. L. L. Fletcher.—Seven Australian tokens.

Tasmania.—1s., Macintosh and Degraes, 1823.

Sydney.—3d., 1854 (two varieties) ; 1d. and $\frac{1}{2}$ d.,
Tea Stores, 1852 ; 1d. Tea Stores, 1853 ;
1d., J. C. Thornthwaite, 1854.

Jamberoo.—1d., William Allen, 1855.

Sandridge.—W. C. Cook.

Mr. S. H. Hamer.—An engraved token for “Half a Guinea; payable at Robert Wilson’s, Sowerby Bridge.” In Mr. W. J. Davis’s “Nineteenth-Century Token Coinage” a token for seven shillings is described, but at the time of writing no other specimens were known to the author. Robert Wilson was born in 1760 and died in 1808. He was in the leather trade and had a large family. One of his sons was named Robert and followed the same trade as his father. In the Numismatic Room at the Bankfield Museum, Halifax, is a specimen of the half-guinea and a little copper plate from which promissory notes for 3s. 6d. were printed “Payable at Robert Wilson’s, Sowerby Bridge.” Wilson’s tokens are not struck from dies, which was customary, but are really engraved promissory notes, or pledges, the one exhibited being No. 6.

Papers.

The PRESIDENT read a paper upon “The Giothaburh Mint of Æthelred II., Canute, and Harold I.,” the name of which appears upon the coins under the forms GOTHABYRI, IOTHAB, etc. He agreed that this must be the Iudanburh mentioned under the year 952 in the *Anglo-Saxon Chronicle* as the place of confinement of Wulfstan, Archbishop of York. Previous authorities have variously attempted to identify Iudanburh with Jedburgh, Woodborough in Nottinghamshire, and Idbury in Oxfordshire; but, as Mr. Carlyon-Britton explained, there were objections to all of these suggestions. He called attention to the passage in Bede referring to the city of Ythancaestir, and submitted philological evidence to show that the names might be identical, and that the forms were not inconsistent with the phonetic changes in the intervening centuries. Ythancaestir as a city had disappeared before the Norman Conquest, but its site was believed by some investigators to be indicated by Effecestre in Domesday, which is represented by the remains of a Roman camp, on

the western wall of which is built the ancient chapel of St. Peter-on-the-Wall.

Mr. Alfred Chitty, Corresponding Member for Melbourne, contributed a monograph on the early coinage of Australia, in which he treated his subject in detail, both from the evidence of the records and from that of the coinage itself.

ORDINARY MEETING.

April 24th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President, in the Chair.

The Minutes of the ORDINARY MEETING, held on March 20th, 1907, were read, confirmed, and signed by the President.

The PRESIDENT reported the return of the Album signed by Their Majesties the King and Queen of Spain, H.M. The Queen Cristina, and H.R.H. The Princess Henry of Battenberg.

New Members.

The PRESIDENT read the following four Certificates for membership and the names of the signatories thereto, viz. :—

Major Robert Pilkington Jackson.

The Woolwich Public Libraries.

Charles H. Imhoff, Esq.

The Aberdeen University Library.

It was proposed by the President, seconded by Mr. Roth, and resolved, that these Certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Presentation.

Messrs. Spink and Son.—*The Biographical Dictionary of Medallists* (vol. iii), by L. Forrer.

Ballot.

The Ballot for the two candidates and the Library proposed for membership at the meeting on March 20th, 1907, was held, and the President declared that all had been elected.

Alterations in Rules.

The PRESIDENT informed the meeting that the Council had decided to recommend some alterations and amendments in the Society's Rules, and read the same. The draft of the alterations proposed was suspended on the notice board accordingly.

Admissions.

The following Members were admitted in pursuance of Chapter II, Section 10, of the Rules, viz. :—

Edgar Lincoln, Esq.

H. D. McEwen, Esq.

Central Library and Museum, Bootle.

The Bibliothèque Nationale de France.

Exhibitions.

Mr. Wm. Charlton.—A gun-money crown of James II. struck in silver and overstruck on a half-crown of the same coinage. In vol. i of *The British Numismatic Journal*, p. 195, Dr. Nelson describes proofs of the

crown in silver. This example is pierced and is much worn.

Mr. L. A. Lawrence.—A short-cross penny struck on an irregular brass flan. The legend on the reverse, viz. : ON W, is retrograde. The piece is probably a contemporary forgery.

Mr. W. J. Webster.—An oval medallion in bronze, measuring 3·9 inches by 3·3 inches, bearing a portrait in high relief, by Roettier, which is believed to be of Samuel Pepys, F.R.S., Secretary to the Navy and famous diarist, *temp.* Charles II. It is presumed to be unpublished in this metal.

Mr. J. B. S. MacIlwaine.—An Edward IV. Rose Noble of Flemish work ; m.m., on reverse : a crown. The legend on the reverse commences **ibD**. instead of **ibC**. Every **æ**. is represented by **α**.

Mr. A. H. Baldwin.—Four cast bullets of gold weighing 111, 111, 111, and 109 grains severally, the lightest being corroded. These are presumed to be cast flans from which coins were to be struck, as they were found together with several specimens of early British or Gaulish gold coins of type "Evans B. 8." The specimen of "Evans B. 8" exhibited by Mr. Baldwin weighed 94 grains.

Papers.

"Leaden Tokens," by George C. Yates, Esq., F.S.A., and "Remarks on their Chronological Sequence," by J. B. Caldecott, Esq.

Mr. G. C. Yates contributed a paper on "British Leaden Tokens," in which he traced their use in supplying the small change necessary in commerce and everyday transactions from mediæval times until they were gradually superseded by the copper issues of the seventeenth and eighteenth centuries. Mr. Yates quoted the churchwardens' accounts of St. Peter, Mancroft, Norwich, to show that in 1632 leaden tokens

were cast and supplied to the parishioners for the purpose of contributions to the church.

Mr. J. B. Caldecott followed with an address upon the Chronological sequence of these tokens, illustrated by numerous examples from his collection. From these he demonstrated how the merchants' marks of the fifteenth century were reproduced on them, the design presently giving place to the simple initials which the tokens frequently bore. He traced the origin of the custom the seventeenth-century trader had of placing both his own and his wife's initials on his money, considering that the practice revealed the closer business connection between husband and wife, which still survives among the *bourgeois* class across the Channel.

ORDINARY MEETING.

May 29th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President, in the Chair.

The Minutes of the ORDINARY MEETING, held on April 24th, 1907, were read, confirmed, and signed by the President.

The PRESIDENT read the reply he had received in acknowledgment of the respectful congratulations presented on behalf of the Society to H.M. King Alfonso of Spain on the birth of H.R.H. the Prince of the Asturias, and a copy of the same was ordered to be entered on the Minutes, viz. :—

Madrid, Palacio Real,
le 17 Mai, 1907.

Monsieur,

Sa Majesté le Roi ayant pris connaissance de la respectueuse félicitation que vous Lui adresser au nom de la British Numismatic Society de Londres, à l'occasion de l'heureuse naissance de S. A. R. le Prince des Asturias, je suis chargé de vous en remercier très sincèrement de sa part.

Agréez, Monsieur, l'expression de ma considération.

(A) Emilio Ma de Torres.

New Members.

The PRESIDENT read the following three certificates for membership and the names of the signatories thereto, viz. :—

Horace Richard Garbutt, Esq.

George Ing, Esq.

Frederic Harman Oates, Esq.

It was proposed by the PRESIDENT, seconded by Mr. ANSCOMBE, and resolved, that these certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Ballot.

The Ballot for the three candidates and the Library proposed for membership on April 24th, 1907, was held, and the President declared that all had been elected.

Presentation.

Messrs. Spink and Son.—“Common Greek Coins,” vol. i,
by the Rev. A. W. Hands.

Admissions.

Shirley Fox, Esq., R.B.A. (*in person*).

Arthur Grimwood, Esq.

David Proskey, Esq.

Exhibitions.

Mr. Reginald Huth.—A penny of William II., Launceston :
Type 2, Hks. 246 ; obverse : + PILLELMREXI ; reverse :
+ IE6LIER ON STEFN. This was found at Shillington,
Bedfordshire. Numbered in the William Allen sale,
March 16th, 1898, Lot 337, and Murdoch, April, 1903,
Lot 203.

Mr. J. H. Daniels.—An ancient British stater found at Balsdean, Sussex, March, 1896; obverse: the degraded representation of a bust; reverse: a horse to the right having its tail in three plaits, with E above and a wheel with six spokes below.



ANCIENT BRITISH STATER.

Mr. R. Donald Bain.—Three cardboard tokens issued by Malcolmson Bros., of Portlaw, co. Waterford:—

1. Circular, green, HALFCROWN TOKEN, MAY-FIELD FACTORY · M · B^{ROS.}, 1842; on the other side, red, same lettering.
2. Circular, yellow, similar lettering, 1854.
3. Octagonal, yellow, FOUR PENCE, · M · B^{ROS.}; other side, Crown, IV PENCE.

Mr. L. A. Lawrence.—

1. A penny of Wulfred, Archbishop of Canterbury; obverse: a bust facing the legend + VVLFREDI ARCHIEPISCOPI; reverse: a cross with the legend + DOROVERNIAE CIVITATIS; weight 20 grains.



PENNY OF ARCHBISHOP WULFRED.

2. A Henry VIII. half-groat, Canterbury (1st issue);

mint-mark a lys, **W**, **π** at the sides of the shield for Wareham.



HALF-GROAT OF HENRY VIII.

3. A Henry VIII. penny, London; mint-mark, sun and cloud.



PENNY OF HENRY VIII.

Mr. Bernard Roth.—Four varieties of the ROYAL D'OR or PAVILION, of Edward the Black Prince, 1330–1376.

1. Obverse: **ED * PO * GNS * REG * ANGLI ***
PRPS * πQVI; reverse: *** DNS • πIVTO • † •**
PTEDTO • ME • † • IPO • SPXIT •
GOR • MEVM; the Latin in full being—
obverse: *Edwardus primo genitus regis*
Angliae, princeps Aquitaniae; and reverse,
Dominus adjutor et protector meus (est), enim
ipso speravit cor meum (the Lord is my strength
and my shield, my heart hath trusted in him:
Psalm xxviii, 8). There is an **a** in the voided
centre of the cross, no mint-mark on either side.
There is a rose or cinquefoil in each spandril
of the ornamented quatrefoil. Weight 74·2
grains.
2. Obverse: **ED * PO * GNS * REG * ANGLI * PRPS ***
πQVI; reverse: same legend as in No. 1
but with mint-mark R (La Rochelle or La

Réole). There is a pierced trefoil in each spandril of the ornamented quatrefoil with an **æ** in the voided centre of the cross. Weight 73·7 grains.

3. Obverse : **ED * DO * GRZ * REG * TRGL * PRPZ * PQVIT** ; reverse : *** DNZ * TITO * I * PTEDTO * ME * I * IPO * ZPTIT * DOR * MEVW * P**. (the last letter being the mint-mark for Poitiers). There is a trefoil composed of three annulets in each spandril of the ornamented quatrefoil with a larger cinquefoil in the voided centre of the cross. Weight 82 grains.

4. Obverse : **ED * DO * GIT * REG * TRGL * PRPZ * PQVI**. The four feathers are very different, having the fibres on each side of the quill quite distinct, like a fern, instead of the whole of each feather being on a raised ground marked by cross lines as in the other three specimens. Reverse : same legend as in Nos. 1 and 2 with mint-mark R (La Rochelle or La Réole) (stops in the form of annulets). There is a trefoil composed of three annulets in each spandril of the ornamented quatrefoil with a larger cinquefoil in the voided centre of the cross. Weight 82·2 grains.

Mr. A. H. Baldwin.—Bristol City leaden token dated 1511. The earliest known piece previously published is dated 1591. This piece is the property of Mr. F. E.



BRISTOL LEADEN TOKEN.

Macfadyen, of Newcastle-on-Tyne. A contemporary forgery in copper of the variety of the Henry III. penny which is distinguished by a sceptre.

Mr. Ernest Carter, M.D.—

1. A Charles I. Aberystwith half-crown; obverse :
FRAN · ET · HIB., from the same punch as
the Shrewsbury half-crown in the Murdoch
collection.



ABERYSTWITH HALF-CROWN.

2. An Oxford shilling, 1642; reverse: RELIG :
PROT : LEGI : ANGL. LIBER : PAR.



OXFORD SHILLING.

3. An Aberystwith shilling, Charles I.; obverse :
like that of the Shrewsbury shilling.



ABERYSTWITH SHILLING.

4. A half-crown of George I., 1726 ; reverse : small roses and plumes.
5. A George III. half-sovereign, 1820.
6. A George III. shilling, 1820.
7. A Jersey one-thirteenth of a shilling, 1851.



JERSEY ONE-THIRTEENTH OF A SHILLING.

8. A Victoria penny, 1860 ; a proof struck on a copper penny of George III. The coins numbered 5, 6, and 7, also, are proofs.



PROOF PENNY OF VICTORIA.

Mr. Wm. Charlton.—

1. A piece of leather of irregular shape, about one inch in length, stamped with a monogram in Armenian character.
2. A circular piece of leather, having on the obverse, a head of classical type, and on the reverse, an ornamental figure with four stars ; this piece is unidentified.
3. Four metallic tokens issued by the Hudson's

- Bay Co. in 1857, for 1, $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$ beaver skins. These were not long current.
4. Three card tokens issued by Messrs. Malcolmson Bros., of Portlaw, viz., for a half-crown and a shilling, dated 1854, and for fourpence. The last is undated.
 5. Two Leyden siege pieces (Carton), one for 30 stivers and another for 5 stivers, both dated 1574.

Mr. W. J. Davis.—A leather note for five shillings issued by the Birmingham Overseers in 1808, and signed by T. Saddington and Jas. Welch; card notes for a half-crown in two varieties, which were probably also issued in leather in about 1808; a leather medal of the Birmingham and Staffordshire Gas Light Co., 1825, $2\frac{1}{4}$ inches in diameter and $\frac{3}{8}$ inch thick.

Papers.

The Reverend J. Charles Cox, LL.D., F.S.A.—“An Elizabethan Coiner.”

Wm. Charlton, Esq.—“Leather Currency.”

Nathan Heywood, Esq.—“A Hoard of Roman Coins.”

The Reverend Dr. Cox read a paper entitled “An Elizabethan Coiner,” which detailed the remarkable criminal actions of Sir John Brockett, commandant of the fort of Duncannon, guarding Waterford Harbour in 1601–2, who occupied his leisure in producing counterfeit coins, cleverly imitating the debased silver coinage of Ireland, and more especially that of Spain. To obtain metal for the purpose, he broke a piece of brass ordnance which helped to guard the fort. During his absence in England an accomplice betrayed him, and he was arrested and imprisoned in the Gatehouse, London. Sir John pleaded that he was justified in counterfeiting Spanish coin, as that country was at enmity with his queen. There are numerous

depositions referring to this case among the Irish State Papers and the Carew Papers at Lambeth.

A paper on "Leather Money" was read by Mr. William Charlton, who demonstrated that, at one time or another in its history, nearly every nation has had recourse to this expedient when suffering from depletion of bullion. There was evidence that leather money had been current in England and Ireland, various tradesmen having adapted it to their token coinage during the last three centuries. In 1808 the Birmingham overseers issued crown and half-crown notes in leather and cardboard "for the convenience of paying the poor"; and the firm of Malcolmson Brothers, flax spinners, near Waterford, used a leather and card currency until as late as 1876.

Mr. Nathan Heywood contributed an account of some Roman brass coins found at Lincoln, which he exhibited.

ORDINARY MEETING.

June 26th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,
President, in the Chair.

The Minutes of the ORDINARY MEETING, held on May 29th, 1907, were read and confirmed, and signed by the President.

New Members.

The PRESIDENT read the following two certificates for membership and the names of the signatories thereto, viz. :—

Frederic William Brewer, Esq.
Alfred Charles Kayll, Esq.

It was proposed by the PRESIDENT, seconded by Mr. ANSCOMBE, and resolved, that these certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Ballot.

The ballot for the three candidates proposed for membership on May 29th, 1907, was held, and the President declared that all had been elected.

Presentations.

The President. — Four volumes of Plates, Medallie Illustrations.

Mr. A. H. Baldwin.—Atkins's Coins of British Possessions and Colonies.

Admissions.

The Aberdeen University Library.

The Woolwich Public Library.

Exhibitions.

The President. — Third Æ of Allectus (unpublished).
Obverse : IMP C ALLECTVS PF AVG. Radiate bust to right cuirassed ; reverse : FELICITAS SEC. Happiness standing to the left, holding in her right hand a caduceus, and in her left a cornucopia. In the field, S.A ; in the exergue, M.L.

Mr. L. A. Lawrence.—A noble of Richard II., with a



NOBLE OF RICHARD II.

slipped trefoil to the right of the lower part of the shield of arms; also two pellets in the first quarter of the shield.

Lieut.-Colonel Morrieson.—

- (1) James I. Half-crown, 3rd Period, m.m. rose. Plaster cast of.
- (2) James I. Half-crown, 3rd Period, m.m. trefoil. Pellet after JACOBVS & ET.
- (3) James I. Half-groat, 2nd Period, large crown on obverse; m.m's.: obverse, escallop; reverse, escallop over rose.
- (4) James I. Half-groat, 2nd Period, m.m. Cinquefoil, SPIN for SPINA.
- (5) James I. Half-groat, 3rd Period, m.m. lis. No inner circles.
- (6) James I. Penny, 3rd Period, m.m. lis. No inner circles.
- (7) James I. Penny, 3rd Period, m.m. two pellets. No inner circles.
- (8) James I. Penny, 3rd Period, m.m. two pellets, SIN for SINE.
- (9) James I. Penny, 3rd Period, m.m. Pellet. Pellet between words on obverse.

Mr. H. W. Taffs.—An Edinburgh groat of James III., differing from those given in Burns in the placing of the letters on the reverse **DMSPT ECTORM ESSLIBE ATVRMS.**

Mr. W. C. Wells.—A quarter stater of Cunobeline, similar to Evans, Plate IX, 13-14, but reading CVNA. Found at Kettering, Northamptonshire.



QUARTER STATER OF CUNOBELIN.

An ancient British gold stater. Reverse : a horse to left, above E P. Found near Tonbridge.



ANCIENT BRITISH STATER PROBABLY OF EPATICCUS.

A small ancient British or Gaulish silver coin. Obverse : a helmeted head to the left. Reverse : a horse to the left, and the letters E Λ P above.



SILVER COIN INSCRIBED E Λ P.

Paper.

Lieut.-Colonel Morrieson.—“The Silver Coins of James I.”

Lieut.-Colonel H. W. Morrieson read a paper on “The English Silver Coins of James I.” He treated his subject under three periods, namely, first, the EXVRGAT type, so called from the commencement of its reverse legend, 1603–4 ; second, the QVÆ DEVS, similarly named from the familiar motto, “Quæ Deus conjunxit nemo separet” adopted by James to commemorate the union of the kingdoms of England and Scotland, 1604–1619 ; and third, a continuation of this type under William Holle as chief engraver to the mint, 1619, to the date of the king’s death in 1625. A special feature of the monograph was Colonel Morrieson’s elucidation of a difficulty which has always puzzled numismatic students. Most of the money is undated, and to determine the year of issue of a particular piece and its place in that year, the usual course would be to refer to the mint-mark and check it

with the records of the mint, but in this reign several of the mint-marks were used more than once, and therefore the actual date of the coins bearing them has remained uncertain. By arranging the whole coinage of the reign according to the variations in the workmanship of the dies, particularly in relation to the bust, titles, and punctuation, Colonel Morrieson has been enabled to solve the problem and assign to its true year each coin the date of which was in dispute.

The coins marked X in the Table appended to Colonel Morrieson's paper, printed in this volume, were exhibited.

ORDINARY MEETING.

July 17th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President, in the Chair.

The Minutes of the ORDINARY MEETING, held on June 26th, 1907, were read and confirmed, and signed by the President.

Ballot.

The ballot for the two candidates proposed for membership on June 26th, 1907, was held, and the President declared that both had been elected.

Presentation.

Lieut.-Colonel Morrieson.—Catalogue of the Anglo-Gallic Coins in the British Museum (1826).

Admissions.

William Bevington Gibbins, Esq.
Charles H. Imhoff, Esq.
George Ing, Esq.
Frederic Harman Oates, Esq.

Exhibitions.

The President and Mr. Bernard Roth, V.-P., exhibited a series of the coins of the reign of Stephen, comprising numerous examples of the remarkable types of Matilda, **PERERIC**, Eustace, William and Stephen, many of which were unpublished. These, by permission of the exhibitors, will be described and illustrated in Mr. Andrew's forthcoming work on the reign.

Mr. Wells. —

Stephen, Hks. 270. Obverse : + STIE - - - - Reverse :
+ EADPINE : ON : NOR.

Stephen, Hks. 270. Obverse : + STIEFNE. Reverse :
+ RODBERT : ON : LV.

Stephen, Hks. 270. Obverse : + STIEFN RE : Reverse :
+ LEFSI : ON : STANF :

Stephen, Hks. 270. Obverse : + STIEFNE R : Reverse :
+ PYLPINE : ON : LVN.

Stephen, Hks. 270. Obverse : covered with roughly
scratched crosses and lines in the die. Reverse :
+ . . RDAN : ON : BRIS :

Stephen, Hks. 270. Reverse : + SAMAR : O[N : LEREE]
A cut halfpenny showing a pendant annulet in front
of the crown.

Stephen, Hks. 270. Obverse : + STEFNE : R. Re-
verse : + LEFSI : ON : STAN. A pellet on each
limb of the cross.

Stephen, Hks. 270. Obverse : + STEFNE : R. Reverse :
 · · · FSI : ON : ST · · · · · , with pellets on the
 limbs of the cross. This coin is from the same
 dies as the last specimen, a cross-bar having been
 added to the sceptre.



Stephen, Hks. 268. Obverse : + STIFNE : Reverse :
 + VIHMAN : ON : SAN.

Mr. T. Bearman.—A leather token. · SAM · TOWERS
 HIS
 · BEHIND. THE ROY · EXCHA · TOKEN
 FOR
 2 PEN.

Mr. L. L. Fletcher.—An unpublished token of Belize, British
 Honduras, for $\frac{1}{4}$ rial, issued by J.J., 1871.

Mr. Inglis.—A medal presented to one of Livingstone's
 native followers. This was acquired by Mr. Kirk, who
 was attached to the relief expedition. Mr. Kirk was
 subsequently appointed consul on the East Coast of
 Africa, and was knighted, and attended the native
 during his last illness.

Three pennies of James I. One of the ordinary type ;
 another resembling Burns, No. 980, having, reverse :
 · TVEATVR VNIA DEVS, and the third, reverse :
 TVEATVR VNITA DE9.

Mr. W. J. Webster.—Thomas Bushell's Mining Share
 Ticket, 1660, with  portrait of Sir Francis Bacon,
 Viscount St. Albans, and Lord Chancellor. King
 James I. gave Bushell authority to work the Royal
 mines. This was confirmed  and renewed by Charles I.
 and Oliver Cromwell. But Bushell was not successful,
 and eventually died in poverty in 1674. His great
 teacher and patron was Sir Francis Bacon.

Med. Ill., I $\frac{468}{68}$.

Paper.

Mr. W. J. Andrew.—“Coins of the Reign of Stephen.”

Mr. Andrew gave the first of a series of addresses on the coinage of the reign of Stephen. Commencing with Hawkins type 270 as the first of the reign, he explained that, owing to the peaceful accession of Stephen, this was issued generally throughout the country; but on the arrival of the Empress Matilda, and Robert, Earl of Gloucester, in 1139, it was discontinued at all the mints under their influence, or, as at Bristol, the obverse die bearing Stephen's portrait and titles was erased. Meanwhile, after the Battle of the Standard, August 22nd, 1138, a medallion coinage was instituted at York, commencing with the well-known Standard type, Hawkins 271. This, after certain variations, was followed by the two-figure type, Hawkins 281. When Stephen's Queen, Matilda, was sent by him into the North to negotiate the treaty with Prince Henry of Scotland, the latter returned with her to York, when no doubt this type was issued. The figures clearly depict the Earl and the Queen on either side of a conventional design of the palm tree and dove of peace, now represented by a floriated standard. His cap is sufficient evidence of his rank, and the bâton in the Queen's hand is the emblem of her authority as Stephen's plenipotentiary; and the fact that their hands are joined is again relative to the treaty. Under this treaty, Henry acquired almost regal powers in his English earldoms, and it was in consequence of this that he issued the series of coins bearing the title of “Henricus,” which are classed by Hawkins as 259 of Henry I. Stephen persuaded the Earl to accompany him on his expedition in the South, to assist with his moral influence in quelling the rising which had been intended to support the Scottish invasion. For example, the entry in the “Gesta” that the Beauchamps refused to surrender Bedford Castle until the arrival of Henry has been thought to refer to the Bishop of Winchester; but Mr. Andrew showed by quotations from a contemporary charter that this referred to Henry the Earl, and further proved the point by Mr. Roth's coin of type 259, bearing Henry's name on the obverse and struck at

Bedford. From Bedford Henry accompanied Stephen into the West, where he again used his influence with the Beauchamp family to suppress the risings at Gloucester and Hereford, and at each of these cities similar coins were minted. Finally, Henry returned to his northern earldom, where he continued to issue this type at Corbridge and other mints, and on most of his coins there are indications of Scottish rather than English workmanship. The medallic coinage at York, as the capital of the ancient kingdom of Northumbria, was continued; and as it was issued by authority of the successive governors, it was unnecessary to place the name of the moneyer and mint upon it for the purpose of identification in the trial of the pyx. Hence the reverse legend was replaced by conventional ornaments so popular at that period. After the Battle of Lincoln (1141) it was natural that the Empress should appoint Eustace Fitz John, her chief supporter in the North, as her Governor at York upon her accession to power; and although they may possibly have been struck by him at a rather later period, it is probable that the coin bearing his name and also Hawkins type 282 were then issued. On the severance of the Legate, Henry, Bishop of Winchester, from the cause of the Empress, his coin, Hawkins 279, would no doubt be issued at York. On Stephen's return to power in 1142, Robert de Stutville, who had played a prominent part for him at the Battle of the Standard, would seem to have been appointed Governor and to have issued the horseman type, Hawkins 280. These coins have always been attributed to Robert, Earl of Gloucester; but Mr. Lawrence has long been of opinion that they more probably issued from York, and Mr. Andrew was now able to settle the question by reference to a specimen in the Hunter Collection, which reads "ROBERT DE STU". The York series was continued by Eustace Fitz Stephen, who is recorded as Governor of York about 1152 and his coins bear the full-length figure and sword, Hawkins 283. Coins of this type, as also one of Eustace Fitz John, bear the title Dictator of York in a contracted form. During the interregnum of nine months following the Battle of Lincoln, Stephen's partisans were faced with the difficulty that, as their king was in captivity, there was no regal

authority for the issue of his money. They therefore resorted to the expedient of countermarking the dies with their own arms as the warrant of authority, which at least would have local influence. Thus Bigod, Earl of Norfolk, stamped his armorial cross on the money issued from Norwich and Thetford; William Peverell similarly placed his arms on the Nottingham money; and Ferrers, Earl of Derby, seems to have resorted to the old badge or arms of Edward the Confessor at Derby. In relation to the last-named type, Mr. Andrew referred to many records of the moneyer, whose full name was Wakelin de Radbourn (near Derby), and who seems to have been a relative of the Earl.

Treating the coinage of the Empress herself, he divided it into two classes, the type of the first bearing the inscription :IMPERATR for Imperatrix, Hawkins 633, which was copied by the English die-sinkers as : + PERERIC and issued at Lincoln, Stamford, Bristol, Winchester, and London. On her reception in London she would acquire the command of the mint, and the legend was changed to :MATILDIS INPER, of which there were also variations. It will be noticed that the first type is that usually given to Roger, Earl of Warwick; but this attribution cannot be correct, and the complete legend, which for the first time was now put in evidence, clearly discloses an attempt to copy the Latin title of the Empress, and the variations in the letters were probably owing to her not having then secured the services of the official die-sinkers in London, the only craftsmen of the art.

To illustrate the subject, the President, Mr. Roth, Mr. Wells, and others exhibited a remarkable series of the coins of this period, comprising specimens of nearly every type treated.

ORDINARY MEETING.

October 23rd, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President, in the Chair.

The Minutes of the ORDINARY MEETING, held July 17th, 1907, were read and confirmed, and signed by the President.

The President reported that Their Majesties the King and Queen of Norway had signed the Society's album, and that the Council had elected Her Majesty a Royal Member.

New Members.

The President read the following twelve certificates for membership, and the names of the signatories thereto, viz. :—

Sidney Edward Barrett, Esq.

George Brownen, Esq.

William John Butcher, Esq.

Genl. Christopher Sullivan Feltrim Fagan, R.M.L.I.,
F.R.G.S.

Harry Bertram Earle Fox, Esq.

Edward Francklin, Esq.

James Maurice Henry, Esq.

Arthur Middleton Jarmin, Esq.

William Edwards Miller, Esq.

George Edward Morewood, Esq.

Frederick George Hilton Price, Esq., *Director S.A.*

Edward Philips Thompson, Esq.

It was proposed by the PRESIDENT, seconded by Mr. ROTH, and resolved, that these certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Admissions.

Frederic William Brewer, Esq.
Horace Richard Garbutt, Esq.
Major Robert Pilkington Jackson.
Alfred Charles Kayll, Esq.

Auditors.

The PRESIDENT nominated, and the meeting approved the appointment of Mr. A. G. Chifferiel and Mr. A. C. Hutchins as Auditors under Chapter XIX of the Rules.

Officers and Council for the Session 1908.

The PRESIDENT read the list of names recommended by the Council for the Officers and Council of 1908, and announced that the Anniversary Meeting would be held on November 30th, at 8 p.m., the ballot to be opened at 8.15 and closed at 8.45.

Presentations.

Messrs. Spink and Son — *Le Musée.*
L. Forrer, Esq.—A Geden Kthaler bearing a portrait of Gabrielle d'Estrées.

Exhibitions.

Mr. G. A. Auden, M.A., M.D.—

A leaden cross impressed at the intersection of its limbs with the obverse of a styca of King Osberht, and immediately below it is with the impression of the reverse of a styca. Between the second impression and the foot of the cross a hole is drilled. The

impression reads : OSBRECHT REX with a pellet in a circle of dots.

Two stycas, one of Eanred. Obverse : + EANRED REX, with a cross. Reverse : + FORDRED; with a cross. The other of Ethelred II. Obverse : + EDILRED X with a cross within a circle of dots. Reverse : .+ . E and a pellet within a circle of dots. Found in close association, during building excavations, in the neighbourhood of Castlegate, York.

Mr. Henry Laver.—

A stater : weight, 86 grains. Obverse : convex, star-shaped ornament, formed of six curved wreaths, or torses, with pointed ends, enclosed by lines on either side, and diverging from three open crescents in the centre. The inner part of the crescents is ribbed. In four of the six spaces between the wreaths are the letters CVNO, the other two being blank. Reverse : horse prancing to right, above a small cross, below an ornament like a cornucopiæ. This coin resembles the stater of Adedomaros (Evans, XIV, 5). It is said to have been found in a cottage garden at Cisbury, about eighty years ago, but was adjudged by the exhibitor and the meeting to be a forgery.

Mr. W. Sharp Ogden.—

A forgery of a copper penny of very rude workmanship, inscribed : VICTORIA DEI GRATIA
— 1841 BRITANNIA REGINA DEI.

A copper token issued by Sykes and Abbot of Huddersfield. The obverse is a close copy of the 1860 penny of Victoria. This token was immediately suppressed by authority of the mint.

A pattern of a mohur in bronze with a plain edge. Obverse : the head of the queen wearing a fillet, VICTORIA QUEEN. 1841. Reverse : a lion

passant, and a palm tree in the rear ; EAST INDIA COMPANY ; in the exergue, ONE MOHVR.

Dr. Stanley Bousfield.—

Specimens of the bronze coinage of Victoria, including—

A proof-penny of 1860, unbronzed, struck on a thick flan ; weight, 185 grains. From the Murdoch collection.

A pattern halfpenny of 1861 ; one of a series of experimental pieces struck by Dr. Graham at the mint in that year, struck in a mixture comprising 10 per cent. of aluminium and 90 per cent. of copper. Weight, 107 grains.

A proof-halfpenny of 1872, struck in brass. It is the only specimen known of a proof in this metal, and is from the G. D. Brown collection.

Mr. A. H. Baldwin.—

An India nickel one anna, 1907.

Mr. S. H. Hamer.—

A specimen of the rare copper token for sixpence issued by the authorities of the Birmingham Workhouse. It measures $1\frac{3}{8}\frac{1}{2}$ inches in diameter and $\frac{1}{3}\frac{3}{2}$ of an inch in thickness. It is dated 1813. Only seven genuine specimens of this token are known. An imitation of later date, made to sell to collectors, was also shown. It presents the same diameter as a copper token for threepence of the Birmingham Workhouse, but has double the thickness, and is without the central cording, or graining, which appears on that token. The exhibitor was informed by Mr. W. J. Davis that thirty-two of these imitations were struck and that, on discovery, all were defaced except six. The token exhibited was the first to be offered for sale, and it was sold for twenty guineas, at Birmingham, in 1889. A specimen of the defaced

tokens was also exhibited, and another, which was one of six struck on a thin flan.

Mr. Inglis.—

A penny of Queen Victoria, dated 1860. Obverse : serrated. Reverse : pearl border.

Mr. B. Roth.—

Three coins found at Morschach, near Brunnen, on the Lake of Lucerne, Switzerland, viz. : a groat and a half groat of Edward III., both of the usual type of the London mint with mint-mark cross patée, and annulets as stops on each ; and a penny of Richard II., of the usual type, of the York mint, with lis on the king's breast, and a quatrefoil in the centre of the large cross patée on the reverse.

Papers.

P. Carlyon-Britton, Esq., F.S.A., *President*.—"The Berkeley Mint."

The President read a monograph upon "The Berkeley Mint in Gloucestershire," in which he adduced evidence from the charters of Henry II., Richard, John, and Edward I., that the right of coining was granted and confirmed to the Fitzhardings of Berkeley from about 1154 to 1230, and showed by inference that this was but the continuance of a privilege enjoyed by the town from at least the time of Edward the Confessor. When the President began his researches, only three coins of this mint were believed to exist ; but he had now compiled the following list of five silver pennies, which are to be attributed to it : Edward the Confessor, Hawkins No. 220, + EDGAR ON BEORC ; another, similar, but reading BERLLE ; No. 227, + EDGAR ON BEORE. William I., Hawkins No. 242, + LIFPINE ON BARCI (for Barch), Henry III., Hawkins No. 287, RAND ON BERI = RANDUL on Berk). The last coin had previously been attributed to Berwick, but that town was not then an English possession.

Fleet-Surgeon A. E. Weightman, R.N.—“The Bronze Coinage of Queen Victoria, 1860–1901.” (Illustrated by lantern slides.)

Fleet-Surgeon A. E. Weightman contributed a comprehensive treatise on the bronze coinage of Queen Victoria, 1860–1901. In this paper the writer disclosed the almost endless varieties of dies which have been used to produce the present result, as represented on our pennies, halfpennies, and farthings of to-day. When the harder bronze metal superseded the copper in 1860, it necessitated a series of experimental dies before one was finally adopted; thus during the first two years there were constant changes of detail. The design then selected remained in use until 1873; but during the following nine years there was again a period of continuous alteration until the present form emerged. In all, apart from the usual date progression, the writer was able to give instances of the use of nearly a hundred and fifty varieties of dies, most of which he exhibited, many being illustrated by means of lantern slides.

ORDINARY MEETING.

November 30th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President, in the Chair.

The Minutes of the ORDINARY MEETING, held on October 23rd, 1907, were read and confirmed, and signed by the President.

The PRESIDENT produced the Society's Album, which had been signed by several other Royal Members since the last Ordinary Meeting.

New Members.

The PRESIDENT read the following two certificates for membership, and the names of the signatories thereto, viz. :—

The Public Library of South Australia.

Francis William Brothers, Esq.

It was proposed by the PRESIDENT, seconded by Mr. ROTH, and resolved, that these certificates be suspended, and it was ordered that the candidates be balloted for at the next meeting.

Ballot.

The ballot for the twelve candidates proposed for membership on October 23rd, 1907, was held, and the President declared that all had been elected.

Exhibitions.

Mr. J. West.—A copper coin of Cunobelin (Evans XII, Fig. 6), recently found at Abingdon; and a rupee of Afghanistan, of the year 1854, found in pulling down an old house in that town.



COPPER COIN OF CUNOBELIN.

Mr. L. Fletcher.—A ticket issued by William Buck of Morston, Norfolk, in January, 1817.

Mr. A. Jarmin.—An aureus of Tiberius, found by a market-gardener at Colchester in November, 1907.

Mr. A. H. Baldwin.—An Ethelred II. penny of the CRVX type, Hks. 204, inscribed: GODIPNE ON PORIME; and another of the long cross type, Hks. 207, inscribed: ALFPOLD M^e O PORI. The first is attributed by Hildebrand to Warmington, in Northamptonshire; the second to Worcester. Most probably both emanate from Warminster.

Mr. P. J. D. Baldwin.—A New Zealand Cross. This reward of valour was first presented in 1869, and is a very handsome decoration. Its form is that of a

Maltese cross. It is of silver, with a six-pointed gold star on each arm. It bears the words "New Zealand" round the centre, encircled by a laurel wreath of gold. The cross is surmounted by a gold crown, and is attached to a crimson riband by a silver bar and ring. The name of the recipient, and the date of the action, are engraved at the back of the cross. The specimen exhibited was awarded to Constable Solomon Black, A.C., for gallant conduct at the siege of Ngatapa, in January, 1869. Only twenty-one of these decorations were issued.

ANNIVERSARY MEETING.

November 30th, 1907.

P. W. P. CARLYON-BRITTON, ESQ., D.L., F.S.A.,

President, in the Chair.

The SECRETARY read the Report of the Council for the Fourth Year since the inauguration of the Society, as follows:—

To the Members of the British Numismatic Society.

The Council have the honour to lay before the Members their fourth Annual Report.

On November 30th, 1906, the Society consisted of 18 Royal, 20 Honorary, and 500 Ordinary Members, the total being 538.

With deep regret the Council record the decease of the six following members:—

Charles Cobham, Esq., F.S.I.

Lord Granville Gordon.

John F. Walker, Esq., M.A., F.G.S.
F. E. Whelan, Esq.
Benjamin Winstone, Esq., M.D.
Julius Witte, Esq.

The Council regret to announce the resignation of seventeen Members, viz. :—

Col. H. F. Bowles, J.P.
F. Costin, Esq.
H. Courthope-Munroe, Esq., M.A.
G. R. Francis, Esq.
Miss C. M. Gibbings.
G. Hamilton-Smith, Esq.
R. P. Hamp, Esq.
Wm. Norman, Esq.
The Hon. R. H. B. Norton.
A. D. Passmore, Esq.
J. H. Renton, Esq.
Wm. Rolfe, Esq.
W. H. G. Spindler, Esq.
C. F. Spink, Esq.
S. G. Streeter, Esq.
E. G. Thorne, Esq., LL.M.
J. G. Wylie, Esq.

The Council have the pleasure to acknowledge the high honour conferred by the gracious consent of Her Majesty the Queen of Norway to become a Member of the Society—an honour which will be appreciated by all Members thereof.

There has been no change as regards the Honorary Members, the maximum number of twenty having been already elected.

The following thirty-two Ordinary Members have been elected during the year :—

The Aberdeen University Library.
S. E. Barrett, Esq.
The Berlin Royal Museum.

The Bootle Central Public Library and Museum.

F. W. Brewer, Esq., M.A.

George Brownen, Esq., F.C.S.

W. J. Butcher, Esq.

Gen. C. S. F. Fagan, R.M.L.I., F.R.G.S.

The Bibliothèque Nationale de France.

Edward Francklin, Esq.

H. B. Earle Fox, Esq.

Shirley Fox, Esq., R.B.A.

H. R. Garbutt, Esq.

W. B. Gibbins, Esq.

A. Grimwood, Esq.

J. M. Henry, Esq.

C. H. Imhoff, Esq.

George Ing, Esq.

Major R. P. Jackson.

A. M. Jarmin, Esq.

A. C. Kayll, Esq.

Edgar Lincoln, Esq.

H. D. McEwen, Esq.

W. E. Miller, Esq.

G. E. Morewood, Esq.

F. Harman Oates, Esq.

F. G. Hilton Price, Esq., *Director* S.A., F.G.S.

H. F. Tasker, Esq.

E. P. Thompson, Esq., J.P.

J. H. Tyars, Esq.

K. P. Vaughan-Morgan, Esq.

The Woolwich Public Libraries.

SUMMARY.

	<i>Royal.</i>	<i>Honorary.</i>	<i>Ordinary.</i>	<i>Total.</i>
November 30th, 1906 ...	18	20	500	538
Since elected	1	—	32	33
	19	20	532	571
Deceased	—	—	6	6
Resigned	—	—	17	17
Amoved	—	—	14	14
30th November, 1907 ...	19	20	495	534

Again the Society tenders its thanks to Messrs. Upton and Britton for their generosity in continuing to place the suite of rooms at 43, Bedford Square, at its service. The Council records its acknowledgment of the services of the Editors of the *Journal*, Mr. Carlyon-Britton, Mr. Lawrence, and Mr. Andrew, and believes that vol. iii will merit equal appreciation with its predecessors.

It congratulates the Treasurer, Mr. R. H. Wood, upon his Report, which affords evidence, not only of the sound financial status of the Society, but also of his careful and attentive management.

A specially pleasing duty of the Council, at the close of this year, is that of acknowledging the very successful efforts of the Librarian, Lieut.-Colonel Morrieson, who, since his appointment in 1905, has endeavoured to popularise and advance the objects of his department, which has now become a well-organised and valuable adjunct to the Society's utility.

Members will cordially join the Council in the pleasing duty of thanking Mr. T. A. Carlyon for the Royal Autograph Album he has presented to the Society. It is a book of vellum leaves, bound in red

and inlaid morocco leather, with silver clasps. It is entirely the work of his own hands. It has now been signed by fourteen Royal Members, and many remarks have been made by them in appreciation of its art. When the number of Royal signatures is complete, the Album will form a most interesting addition to the Society's possessions.

Two alterations in the Rules are recommended to the Society for ballot at this the Anniversary Meeting. One of these is designed to allow rather more latitude to the Council in dealing with those careless members who intend to pay their subscriptions, but delay doing so. The other is devised to lighten the work of the Editors and Secretaries in the performance of their increasing duties and responsibilities by the introduction of additional Secretaries when necessary.

The papers read to the Society have maintained its reputation. The increasing and much more general interest shown in British Numismatics is well marked, and is now, indeed, so noteworthy as to afford great satisfaction to the Council.

Exhibitions of coins, medals and curios are especially invited by the Council, as they add so much to the interest of the meetings. The thanks of the Society are due to those who have so kindly and ably contributed in this respect during the present year.

Lastly, the Council gratefully acknowledges the numerous presentations made to the Library and collections of the Society, and specially offers its thanks to the many donors.

The Report was received with applause by the Members present. It was moved by Mr. SHIRLEY FOX, seconded by Mr. BERESFORD SMITH, and resolved, that the same be adopted.

Ballot for the Election of Officers and Council for 1908, and as to the proposed Alterations of and Additions to the Rules.

The PRESIDENT declared the ballot open from 8.15 p.m. to 8.45 p.m., and, with the approval of the Meeting, nominated Mr. P. J. D. Baldwin and Mr. Kafka as Scrutators. The votes

having been examined by the Scrutators, they reported to the Chairman, who announced that the large number of Members who had voted were, with one or two exceptions, in favour of the election of the Officers and Members of the Council as set out in the balloting list, and also in favour of the proposed alterations of and additions to the Rules. The voting papers were ordered to be destroyed.

OFFICERS AND COUNCIL.

SESSION 1908.

President.

P. W. P. CARLYON-BRITTON, ESQ., F.S.A., D.L., J.P.

Vice-Presidents.

THE MOST HON. THE MARQUESS OF AILESBUURY.

G. R. ASKWITH, ESQ., M.A., K.C.

SIR FREDERICK D. DIXON-HARTLAND, BART., M.P., F.S.A., F.R.G.S.

THE RIGHT HON. THE EARL EGERTON OF TATTON, M.A.

THE RIGHT HON. THE LORD GRANTLEY, F.S.A., D.L., J.P.

BERNARD ROTH, ESQ., F.S.A., J.P.

Director.

L. A. LAWRENCE, ESQ., F.R.A.S. (IRELAND).

Hon. Treasurer.

RUSSELL H. WOOD, ESQ., A.C.A.

Hon. Librarian.

LIEUT.-COLONEL H. W. MORRIESON, R.A.

Hon. Secretaries.

W. J. ANDREW, ESQ., F.S.A.

A. ANSCOMBE, ESQ. F.R.Hist.S.

Council.

A. H. BALDWIN, ESQ.

THOMAS BEARMAN, ESQ.

S. BOUSFIELD, ESQ., M.A., M.B.

THE REV. J. CHARLES COX, LL.D., F.S.A.

LIONEL L. FLETCHER, ESQ.

L. FORRER, ESQ.
SHIRLEY FOX, ESQ., R.B.A.
W. H. FOX, ESQ., F.S.A.
MAJOR WILLIAM J. FREER, V.D., F.S.A.
WILLOUGHBY GARDNER, ESQ., F.L.S.
ROBERT A. INGLIS, ESQ., B.A.
W. SHARP OGDEN, ESQ.
SIR ALFRED SCOTT-GATTY, KT., F.S.A., Garter Principal King of Arms.
EDWARD UPTON, ESQ., F.Z.S.
FLEET-SURGEON A. E. WEIGHTMAN, R.N.

Treasurer's Report.

The TREASURER read the Balance Sheet for the past financial year, and distributed copies of the same to Members present. He also read the Certificate of the Auditors at the foot of the same, certifying that the accounts had been audited and found correct.

It was moved by the PRESIDENT, seconded by Mr. UPTON, and resolved, that the Treasurer's Accounts be adopted.

CHAPTER IV, SECTION III, OF THE RULES.

The PRESIDENT read the names of Members who had failed to pay their subscriptions for 1906, and made an entry of their amoval against their names in the Register of the Society, in accordance with Chapter IV, Section III, of the Rules.

Exhibition.

Lieut.-Colonel H. W. Morrieson.—Six pennies of William I.

(1) PAXS type, Hks. No. 241. Reverse: + CVTÐBRHT
ONVNE. Durham. (2) PAXS type, Hks. No. 242.
Reverse: + IELFPINE ON ERV. Cricklade. (3) Hks.
No. 233. Reverse: + ALDCAR ON LVNDEN. London.
(4) PAXS type, Hks. 242. Reverse: + GODRIC ON
ÐTFRDI. Thetford. (5) Hks. 238. Reverse: + ANDRBOD
ON PNIC. Winchester; and (6) Hks. 237. Reverse:
+ ALEIGF ON EOFR. York.

Also a penny of William II., Hks. 246. Reverse: + DVNIC
ON TOTN. Totnes.

Paper.

The PRESIDENT read the second part of his "Numismatic History of the Reigns of William I. and II." In this section he treated the moneyers and their mints. The former were represented on the coins preserved to us by 244 different names; but as many of these were repeated at various mints, it seemed probable that more than 500 moneyers were in office during the two reigns; whereas the towns at which they coined numbered seventy. Kent and Wiltshire headed the list with six mints each; Dorset, Gloucester, Suffolk and Sussex had four; Devonshire, Hampshire, Northamptonshire and Somerset had three; Essex, Lincolnshire, Norfolk, Surrey and Warwickshire had two; most other counties had one; but Cumberland, Lancashire, Northumberland, Rutland and Westmorland had then no mints. These particulars furnished a sidelight on the spread of population and trade over the country in Norman times, and the vicissitudes which then important mint towns (such, for instance, as Bedwin and Rhuddlan) have suffered in later days.

Summarising the evidence gathered from historical records—the Domesday Survey, and the coins—Mr. Carlyon-Britton deduced (1) that every borough existing in the reign of Æthelstan possessed a mint; (2) that a place on becoming a composite borough prior to the reign of William I. became possessed of a mint; (3) that simple boroughs belonging to the king had a mint or not according to his pleasure; (4) that a composite borough possessing a pre-Conquest mint was, with few exceptions, allowed to continue the operation of the same; (5) that a simple borough created or granted to a subject after the Conquest had no mint unless the same was specifically granted. The writer exhibited his collection of nearly 450 silver pennies of the two reigns.

During the reading of the paper, Mr. G. R. Askwith, Vice-President, occupied the Chair, and at its close, moved that a hearty vote of thanks be accorded to the President for his paper.

It was also moved by Mr. SHIRLEY FOX, seconded by Fleet-Surgeon A. E. WEIGHTMAN, and carried with acclamation, that a vote of thanks be given to the President and Officers of the Society for having so successfully maintained throughout the year the high position achieved by the Society.

The British Numismatic Society.

INCOME AND EXPENDITURE ACCOUNT, 1907.

DR.	<i>Expenditure.</i>				<i>Income.</i>			CR.
	£	s.	d.		£	s.	d.	
To printing and binding 1906 <i>Journal</i> , including contributors' reprints, plates and blocks, estimated at	434	19	6	By subscriptions received and due	516	12	0	
„ 1905 <i>Journal</i> . Balance of cost and delivery	48	12	11	„ admission fees	33	12	0	
„ printing and stationery... ..	27	10	3	„ amount received compounding subscriptions	15	0	0	
„ postages... ..	28	0	11	„ dividends on Consols and interest on bank deposit ...	18	11	11	
„ casts of coins	12	17	6					
„ fee to clerk to Council... ..	10	10	0					
„ expenses of Meetings and refreshments	10	0	6					
„ printing reports of Meetings	4	9	0					
„ sundry expenses	2	13	0					
Total expenditure	579	13	7					
„ balance, being surplus of income over expenditure for the year...	4	2	4					
	£583	15	11		£583	15	11	

BALANCE SHEET, 16th November, 1907.

[illegible]

R. H. WOOD, *Treasurer*

We, the Auditors appointed to audit the accounts of the above Society, hereby certify that all our requirements as auditors have been complied with, and report to the Members that we have examined and compared the above accounts with the books and vouchers of the Society, and in our opinion they are properly drawn up so as to exhibit a true and correct view of the state of the Society's affairs, as shown by the books of the Society.

22nd November, 1907.

ARTHUR G. CHIFFERIEL, F.C.A.
ALEX. C. HUTCHINS, A.C.A.

The British Numismatic Society.

LIST OF MEMBERS.

ROYAL MEMBERS.

HER MAJESTY THE QUEEN.
HIS ROYAL HIGHNESS THE PRINCE OF WALES.
HER ROYAL HIGHNESS THE PRINCESS OF WALES.
HER ROYAL HIGHNESS THE PRINCESS CHRISTIAN.
HER ROYAL HIGHNESS THE PRINCESS HENRY OF BATTENBERG.

In Alphabetical Order.

HIS MAJESTY LEOPOLD II., KING OF THE BELGIANS.
HIS MAJESTY FREDERIK VIII., KING OF DENMARK.
HER MAJESTY THE QUEEN OF DENMARK.
HIS MAJESTY GEORGE, KING OF THE HELLENES.
HIS ROYAL HIGHNESS THE PRINCE ROYAL OF THE HELLENES.
HIS MAJESTY VICTOR EMMANUEL III., KING OF ITALY.
HER MAJESTY THE QUEEN OF ITALY.
HIS MAJESTY HAAKON VII., KING OF NORWAY.
HER MAJESTY THE QUEEN OF NORWAY.
HER MAJESTY THE QUEEN OF PORTUGAL.
HIS MAJESTY ALFONSO XIII., KING OF SPAIN.
HER MAJESTY THE QUEEN OF SPAIN.
HER MAJESTY QUEEN CRISTINA OF SPAIN.

HONORARY MEMBERS.

In Order of Election.

SIR HENRY CHURCHILL MAXWELL-LYTE, K.C.B., M.A., F.B.A., F.S.A., Deputy Keeper
of the Public Records, 3, Portman Square, W.

- FIELD-MARSHAL THE RIGHT HON. EARL ROBERTS, V.C., K.G., K.P., G.C.B., G.C.S.I., G.C.I.E., O.M., P.C., R.A., D.C.L., LL.D., D.Litt., Englemere, Ascot.
- HIS EXCELLENCY THE HON. JOSEPH HODGES CHOATE, late American Ambassador at the Court of St. James's, 4, Carlton House Terrace, S.W.
- THE RIGHT HON. THE COUNTESS OF YARBOROUGH, BARONESS FAUCONBERG, BARONESS CONYERS, Brocklesbury Park, Lincolnshire, and 17, Arlington Street, S.W.
- HIS EXCELLENCY THE MARQUIS DE SOVERAL, G.C.M.G., G.C.V.O., Env. Ex. and Min. Plen. of H.M. The King of Portugal, 12, Gloucester Place, Portman Square, W.
- HIS EXCELLENCY THE COUNT DE LALAING, Env. Ex. and Min. Plen. of H.M. the King of the Belgians, 15, West Halkin Street, S.W.
- HIS EXCELLENCY COUNT ALBERT MENSENDORFF-POUILLY-DIETRICHSTEIN, Austro-Hungarian Ambassador at the Court of St. James's, 18, Belgrave Square, S.W.
- HIS EXCELLENCY MONSIEUR FRANK ERNEST DE BILLE, G.C.V.O., Env. Ex. and Min. Plen. of H.M. the King of Denmark, 24, Pont Street, S.W.
- HIS EXCELLENCY MONSIEUR PAUL CAMBON, G.C.V.O., French Ambassador at the Court of St. James's, Albert Gate House, S.W.
- HIS EXCELLENCY COUNT PAUL WOLFF-METTERNICH, German Ambassador at the Court of St. James's, 9, Carlton House Terrace, S.W.
- HIS EXCELLENCY COMMENDATORE ALBERTO PANSA, G.C.V.O., late Italian Ambassador at the Court of St. James's, 20, Grosvenor Square, W.
- HIS EXCELLENCY COUNT TADASU HAYASHI, late Ambassador of H.I.M. the Emperor of Japan, 4, Grosvenor Gardens, S.W.
- HIS EXCELLENCY BARON GERICKE VAN HERWIJNEN, Env. Ex. and Min. Plen. of H.M. the Queen of the Netherlands, 8, Grosvenor Gardens, S.W.
- HIS EXCELLENCY THE COUNT DE BENCKENDORFF, Russian Ambassador at the Court of St. James's, Chesham House, Chesham Place, S.W.
- HIS EXCELLENCY BARON DE BILDT, late Env. Ex. and Min. Plen. of H.M. the King of Sweden, 59 and 60, Jermyn Street, S.W.
- VERNON HORACE RENDALL, Esq., B.A., Editor of the *Athenæum*, Bream's Buildings, Chancery Lane.
- HIS EXCELLENCY MONSIEUR GASTON CARLIN, Env. Ex. and Min. Plen. of the Republic of Switzerland, 38, Beauchamp Place, S.W.
- HIS EXCELLENCY SEÑOR DON LUIS POLO DE BERNABÉ, G.C.V.O., late Spanish Ambassador at the Court of St. James's, 1, Grosvenor Gardens, S.W.
- HIS EXCELLENCY THE HON. WHITELAW REID, American Ambassador at the Court of St. James's, Dorchester House, Park Lane, W.
- HIS EXCELLENCY MONSIEUR DIMITRY GEORGE MÉTAXAS, G.C.V.O., late Env. Ex. and Min. Plen. of H.M. the King of the Hellenes, 1, Stanhope Gardens, S.W.

MEMBERS.¹

*The sign * signifies that the member has compounded for his annual subscription.*

- *ABABRELTON, ROBERT A, Esq., F.R.E.S., F.R.G.S., Post Box, 322, Pietermaritzburg, Natal, South Africa.
- ABBOTT, ERNEST HENRY, Esq., 6, Warwick Court, Gray's Inn, London, W.C.
- ABERDEEN, THE PUBLIC LIBRARY, G. M. Fraser, Esq., Librarian, Aberdeen, N.B.
- ABERDEEN, THE UNIVERSITY LIBRARY, P. J. Anderson, Esq., M.A., LL.B., Librarian, Aberdeen, N.B.
- ABRAHAM, E. A. V., Esq., Georgetown, Demerara.
- ADAMS, HERBERT JORDAN, Esq., J.P., Roseneath, Enfield.
- AILESBUURY, THE MOST HON. THE MARQUESS OF, Savernake Forest, Marlborough.
- ALLEN, WILLIAM, Esq., J.P., Burton Joyce, near Nottingham.
- AMERICAN NUMISMATIC SOCIETY, THE, 156th Street, West of Broadway, New York.
- ANDREW, W. J., Esq., F.S.A., Cadster, near Whaley Bridge.
- ANSCOMBE, ALFRED, Esq., F.R.Hist.S., 30, Albany Road, Stroud Green, London, N.
- ANTIQUARIES OF LONDON, THE SOCIETY OF, Burlington House, Piccadilly, W.
- APPLEBY, FREDERICK HENRY, Esq., J.P., M.R.C.S., Barnbygate House, Newark.
- ARBOUIN, FASSETT ERNEST, Esq., F.R.G.S., 8, Rue de Pons, Cognac, Charente, France.
- ARMSTRONG, FRANK, Esq., 88 and 90, Deansgate, Manchester.
- ASHBY, ALFRED, Esq., Heathfield, Bromborough, Cheshire.
- ASHBY, JOHN, Esq., J.P., The Close, Staines, Middlesex.
- ASKWITH, G. R., Esq., M.A., K.C., 2, Pump Court, Temple, London, E.C.
- ASPREY, JOSEPH WILLIAM, Esq., Gwynant, Shortlands, Kent.
- ASQUITH, THE RIGHT HON. H. H., P.C., K.C., M.P., H.M.'s Prime Minister
10, Downing Street, London, S.W.
- ASTLEY, THE REV. H. J. DUKINFIELD, M.A., Litt.D., F.R.Hist.S., F.R.S.I., East
Rudham, near King's Lynn, Norfolk.
- ATHILL, CHARLES HAROLD, Esq., F.S.A., Richmond Herald, College of Arms,
London, E.C.
- AUDEN, GEORGE AUGUSTUS, Esq., M.A., M.D., Apsley, Solihull, Birmingham.
- BAILEY, HENRY, Esq., Ridgemount, Enfield.
- BAILEY, WILLIAM HEAP, Esq., 28, Oakley Square, London, N.W.
- BAIN, R. DONALD, Esq. (H.M. Inspector of Mines), Aykleyheads, Durham.
- BAIRD, THE REV. DR. ANDREW B., 247, Colony Street, Winnipeg, Canada.
- BAKER, SIR AUGUSTINE F., Kt., M.A., 56, Merrion Square, Dublin.
- BALDWIN, A. H., Esq., 4A, Duncannon Street, Charing Cross, London, W.C.
- BALDWIN, PERCY J. D., Esq., 4A, Duncannon Street, Charing Cross, London W.C.
- BALLY, MONSIEUR STANISLAS EMILE, Les Sapins, Mont Gibert Clarens, près Montreux
Switzerland.

¹ For the convenience of members this list is revised to date of going to press.

- BANKS, WALTER, Esq., The Homestead, Northwood, R.S.O.
BANNERMAN, W. BRUCE, Esq., F.S.A., F.S.A. Scot., The Lindens, Sydenham Road, Croydon.
*BARNARD, ROBERT, Esq., M.E., C.C.M., M.I.M.E., etc., Banali, Kalipahari P.O., Bengal, India.
*BARNES, ALFRED W., Esq., 8, Highbury Park, Highbury, London, N.
BARRATT, PERCIVAL, Esq., Wood Street, Wakefield.
BARRETT, SIDNEY EDWARD, Esq., The Limes, Tillingham, near Southminster, Essex.
BARRON, THOMAS WALTER, Esq., M.A., Yew Tree Hall, Forest Row, Sussex.
BARTHOLOMEW, CHARLES WILLIAM, Esq., M.A., C.E., Blakesley Hall, near Towcester.
BARTLEET, RICHARD, Esq., Heathfield, Shepperton, Middlesex.
BATES, JAMES, Esq., Arran Lodge, Holly Walk, Leamington Spa.
BAYLEY, ARTHUR R., Esq., B.A., St. Margaret's, Malvern.
BEARMAN, THOMAS, Esq., Melbourne House, Tudor Road, Hackney, London, N.E.
BEAUMONT, EDWARD, Esq., M.A., 1, New Square, Lincoln's Inn, London, W.C.
BEDFORD, HIS GRACE THE DUKE OF, K.G., F.S.A., Woburn Abbey, Bedfordshire.
BELOE, E. M., Esq., F.S.A., 1, Boston Square, Hunstanton, near King's Lynn.
BEMROSE, WILLIAM, Esq., F.S.A., J.P., Elmhurst, Derby. (Since deceased.)
BERLIN ROYAL LIBRARY, THE, c/o Messrs. Asher & Co., 13, Bedford Street, Covent Garden, London, W.C.
BERLIN ROYAL MUSEUM, THE, c/o Messrs. Asher & Co., 13, Bedford Street, Covent Garden, London, W.C.
BERNEY-FICKLIN, PHILIP, Esq., F.S.A., J.P., Tasburgh Hall, Norwich.
BIGGE, FRANCIS E., Esq., Hennapyn, Cockington, near Torquay.
BIRCH, JOHN DE GRAY, Esq., P.O. Box 81, Salisbury, Rhodesia.
BIRKENHEAD FREE PUBLIC LIBRARIES, Jno. Shepherd, Esq., Librarian, Central Library, Birkenhead.
BIRMINGHAM FREE LIBRARIES, A. Capel Shaw, Esq., Chief Librarian, Ratcliff Place, Birmingham.
BLACKBURN, FREE LIBRARY MUSEUM AND ART GALLERY, THE, R. Ashton, Esq., Librarian and Curator.
BLOOR, HERBERT T., Esq., C.A., 38, Bath Road, Bedford Park, London, W.
BODKIN, ARCHIBALD HENRY, Esq., Recorder of Dover, 5, Paper Buildings, Temple, London, E.C.
BOILEAU, MAJOR RAYMOND FREDERIC, J.P., The Grange, Fundenhall, Norwich.
BOOTLE, CENTRAL LIBRARY AND MUSEUM, THE, C. H. Hunt, Esq., Librarian and Curator, Oriel Road, Bootle, Lancashire.
BOUSFIELD, STANLEY, Esq., M.A., M.B., B.C., M.R.C.S., L.R.C.P., 35, Prince's Square, London, W.
BOWLES, H. BOLLES, Esq., 35, Oakfield Road, Clifton, Bristol.
BOYLE, SIR EDWARD, Bart., K.C., 63, Queen's Gate, London, S.W.
BOYLE, COLONEL GERALD EDMUND, 48, Queen's Gate Terrace, London, S.W.

- BRADFORD PUBLIC LIBRARY, Butler Wood, Esq., Librarian, Bradford.
- BRADLEY, JOHN W., Esq., B.A., Librarian and Assistant Secretary William Salt
Archæological Society, Stafford.
- BRAND, VIRGIL, M., Esq., 1,251, Elston Avenue, Chicago, Ill., U.S.A.
- BRASSINGTON, W. S., Esq., F.S.A., Librarian, Shakespeare Memorial Association,
Southcroft, Stratford-on-Avon.
- BREEDS, ARTHUR O., Esq., F.S.I., 62, Lincoln's Inn Fields, London, W.C.
- BREWER, FREDERIC WM., Esq., M.A., Allan's Endowed School, Newcastle-on-Tyne.
- BRIDGMAN, FRANCIS GEORGE, Esq., 5, Duchess Street, Portland Place, London, W.
- BRIGGS, CHARLES ADOLPHUS, Esq., F.E.S., Rock House, Lynmouth, R.S.O., N. Devon.
- BRIGHTON PUBLIC LIBRARY, Henry D. Roberts, Esq., Director, Brighton.
- BRITTON, A. H. D., Major, 5th Batt. the Royal Dublin Fusiliers, Kingston, Princess Road,
Bournemouth (West).
- BRITTON, MRS. A. H. D., Kingston, Princess Road, Bournemouth (West).
- BROOKING-ROWE, J., Esq., F.S.A., Castle Barbican, Plympton, S. Devon. (Since deceased.)
- BROTHERS, FRANCIS WILLIAM, Esq., The Elms, Putney Hill, London, S.W.
- BROÜN-MORISON, JOHN BROÜN, Esq., F.S.A.Scot., D.L., J.P., Harrow-on-the-Hill,
Middlesex.
- BROWNE, GEORGE, Esq., F.C.S., Talnas, Grove Road, Christchurch, Hants.
- BRUNN, MONSIEUR L. E., Gothersgade 101, Copenhagen.
- BUCHAN, JOHN S., Esq., 17, Barrack Street, Dundee.
- BULL, JOHN FRANCIS, Esq., 52, Bedford Row, London, W.C.
- BURNEY, CHARLES, Esq., B.A., Collomere, Wandsworth Common.
- *BURT, GEORGE, Esq., F.R.M.S., Castle Hill, Rotherfield, Sussex.
- BURTCHAELL, G. D., Esq., M.A., LL.B., M.R.I.A., Athlone Pursuivant of Arms,
44, Morehampton Road, Dublin.
- BUTCHER, J. O., Esq., 26, Harley Street, Cavendish Square, London, W.
- BUTCHER, WM. JOHN, Esq., Brookend Street, Ross, Herefordshire.
- CAHN, MONSIEUR ADOLPHE E., 55, Niedenau, Frankfurt-a-Main.
- CALDECOTT, J. B., Esq., The Stock Exchange, London, E.C.
- CALVERT, J. R., Esq., Earls Barton, Arbour Street, Southport.
- CAMBRIDGE, FITZWILLIAM MUSEUM, M. R. James, Esq., Litt.D., Director.
- CAMBRIDGE UNIVERSITY LIBRARY, F. Jenkinson, Esq., M.A., Librarian.
- CARDIFF FREE LIBRARIES, John Ballinger, Esq., Librarian, Cardiff.
- CARLYON, A. K., Esq., D.L., J.P., Mount Park, Harrow, Middlesex.
- CARLYON, T. A., Esq., Connemara, Darracott Road, Boscombe, Bournemouth.
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